SERGEYEV, N.P.; RYABOV, V.M., inzhener, retsenzent; ZVEGINTSEVA, K.V., inzhener, redaktor; GOLOSIN, S.Ya., inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor

[Resistance welding; a welder's manual] Kontaktnaia svarka; Pamiatka dlia svarshchika. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1955. 91 p. (MLRA 8:10)
(Electric welding)

BRODSKIY,A.Ya.; ZVEGINTSEVA,K.V., inzhener, redaktor; GRUSHEVSKAYA,G.M., redaktor; POPOVA,S.N., tekhnicheskiy redaktor

[Argon-arc welding using tungsten electrodes] Argono-dugovaia svarka vol'framovym elektrodom. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 395 p. (MIRA 9:3)
(Electric welding)

SERGEYEV, Nikolay Petrovich; FEYGINSON, Moisey Samuilovich; ZHARKOV, A.F., inzh., retsenzent; ZVEREVETSKAYA, K.V., inzh., red.; STEPANCHENKO, N.S., red. izd-va; ML'KIND, V.D., tekhn. red.

[Electric resistance welding] Elektricheskaia kontaktnaia svarka. Izd. 2., perer. i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 286 p. (MIRA 11:10)
(Electric welding)

CHERNYSHEVA, Yelena Vasil'yevna.; VOSHCHANOV, K.P., inzh., retsenzent.; TSEKEL'SKIY, V.L., inzh., retsenzent.; ZVEGINTSEVA, K.V., inzh., red.; STEPANCHENKO, N.S., red. izd-va.; EL'KIND, V.D., tekhn. red.

[Current sources for the electric welding arc] Istochniki pitaniia svarochnoi dugi. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 112 p. (MIRA 11:10)
(Electric welding)

ZVEGINTSEVA, K. V.

LAPIDUS, Vladimir Arkad'yevich; KRYUKOVSKIY, N.N., inzhener, retsenzent; ZVEGINTSEVA, K.V., inzhener, redaktor; GRUSHEVSKAYA, G.M., izdatel'skiy redaktor; MODNL', B.I., tekhnicheskiy redaktor

[Electrodes for built-up welding] Elektrody dlia naplavki. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1957. 231 p. (MLRA 10:6)
(Electrodes)

ZVEGINTSEVA K.V.

YELISTRATOV, Petr Savel'yevich; IVANOV, B.G., kand.tekhn.nauk, retsenzent; ZVEGINTSEVA, K.V., inzhener, red.; MEZHOVA, V.A., red.izdatel'stva; TIKHANOV, A.Ya., tekhn.red.

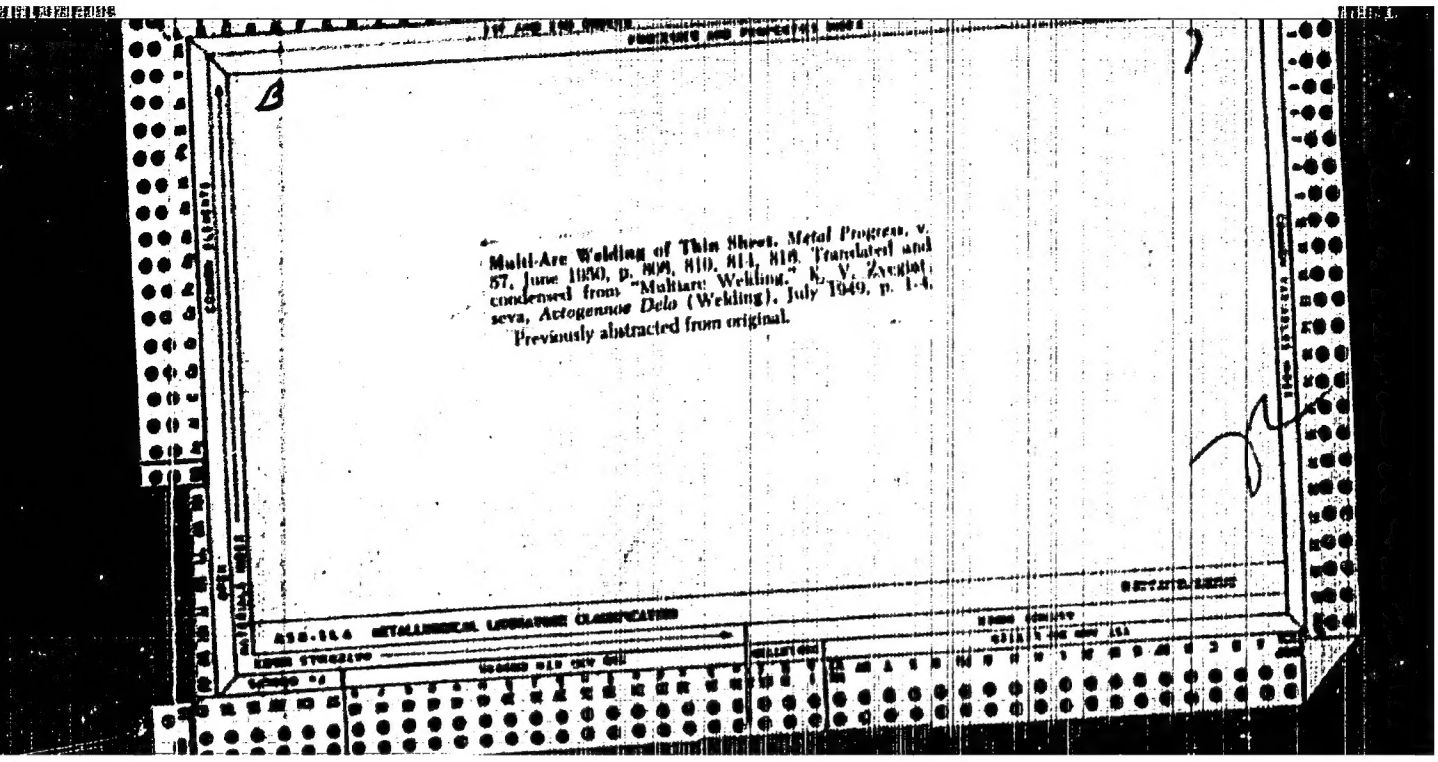
[Metallurgical principles of iron welding] Metallurgicheskie osnovy svarki chuguna. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 154 p. (MIRA 10:12)
(Welding)

ZVEGINTSEVA, K.V.

LYUBAVSKIY, K.V., prof., doktor tekhn.nauk, otvetstvennyy red.; ZVEGINTSEVA, K.V., inzh., red.; KATLER, S., kand.tekhn.nauk, red.; TYUL'KOV, M.D., kand.tekhn.nauk, red.; PETROV, A.V., kand.tekhn.nauk, red.

[Gas-shielded arc welding; papers at the All-Union Scientific Conference on Gas-Shielded Welding] Voprosy dugovoi svarki v zashchitnykh gazakh; doklady k Vsesoiuznomu nauchno-tekhnicheskomu soveshchaniiu po svarke v zashchitnykh gazakh. Moskva, 1957. 250 p. (MIRA 11:5)

1. Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Sektsiya svarki metallov.
(Electric welding) (Protective atmospheres)



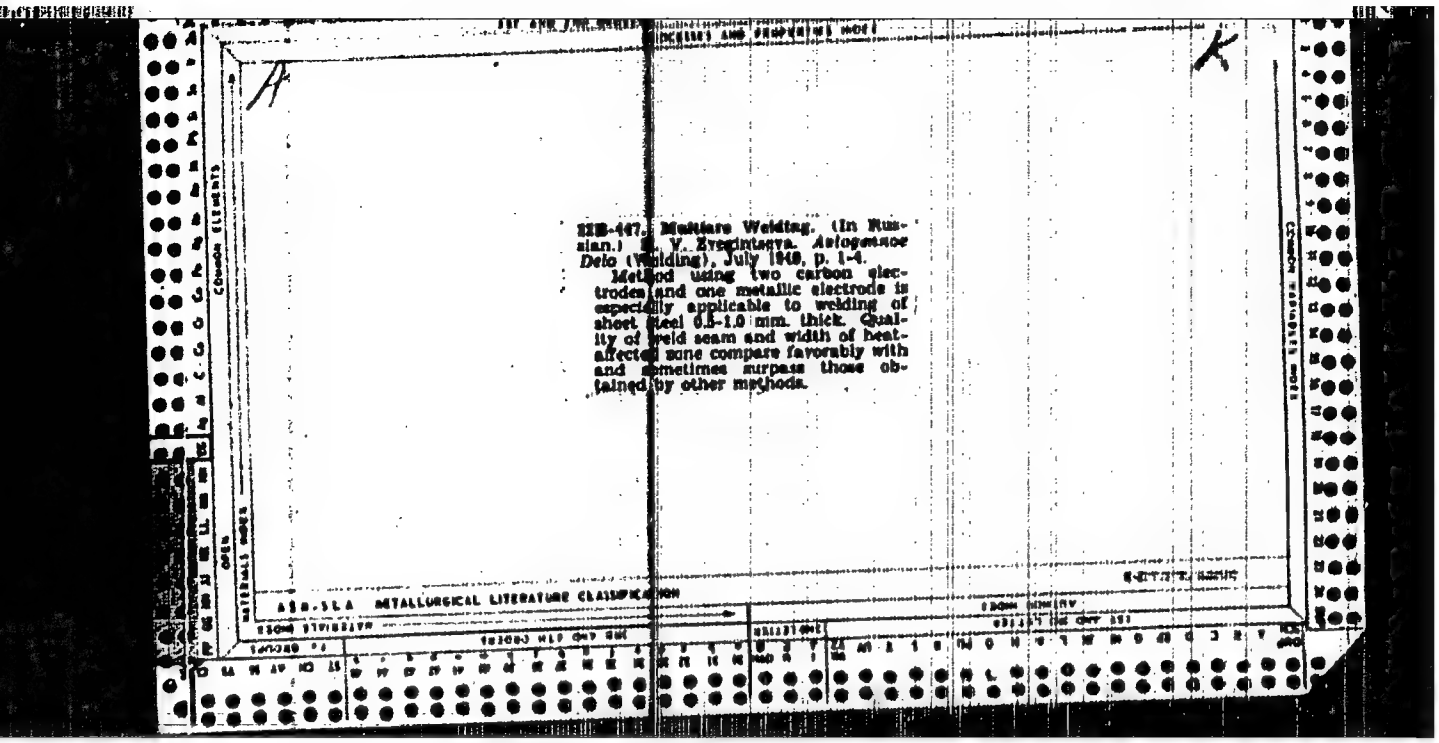
Multi-Arc Welding of Thin Sheet. *Metal Progress*, v. 57, June 1950, p. 809, 810, 814, 816. Translated and condensed from "Multiare Welding." K. V. Zvegintseva, *Actogennoe Delo* (Welding), July 1949, p. 1-4.
Previously abstracted from original.

VLADIMIRSKIY, T.A.; FAL'KEVICH, A.S.; ZVEGINTSEVA, K.V., inzhener, retsenzent; SHTERLING, S.Z., dotsent, redaktor; MODEL', B.I., tekhnicheskie redaktor; BUTYLKIN, A.G., tekhnicheskiy redaktor

[Equipment and experience in welding under gas pressure] Oborudovanie i opyt primeneniia gazopressovoi svarki. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1952. 114 p. [Microfilm] (MLRA 9:12)
(Gas welding and cutting)

DUL'KIN, V.Ya.; ULESOV, A.A.; ZVEGINTSEVA, K.V., nauchnyy redaktor; KRYUGER, Yu.V., redaktor izdatel'stva; GUSEVA, S.S., tekhnicheskiy redaktor

[Submerged-melt welding of concrete reinforcements] Vannaia svarka armatury zhelezobetona. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 50 p. (MLRA 9:9)
(Welding) (Reinforced concrete)



ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

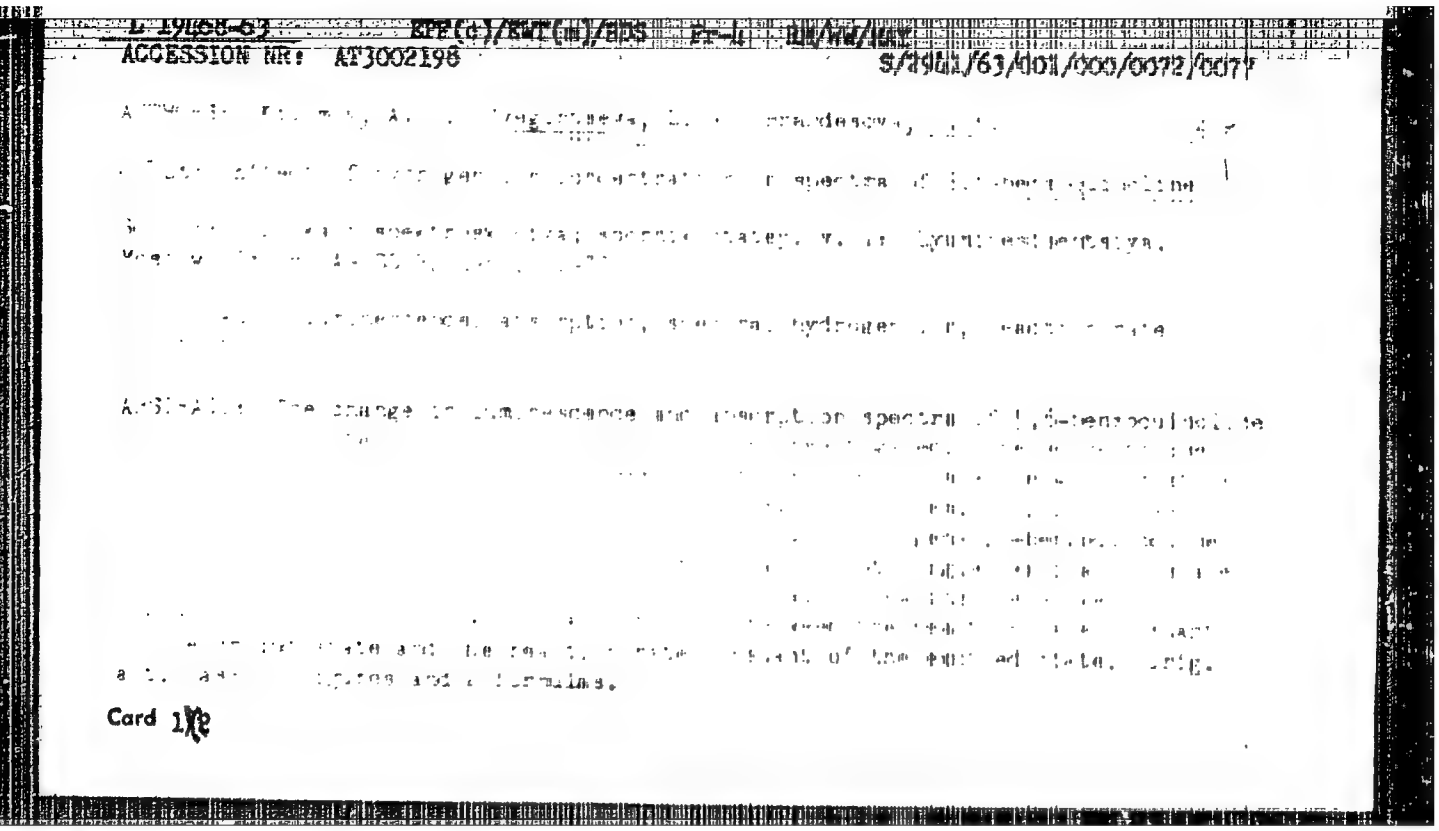
ZIB-447. Multiare Welding. (In Russian.) [illegible] V. Zvegintseva. *Avtogennoe Delo* (Welding), July 1949, p. 1-4.

Method using two carbon electrodes and one metallic electrode is especially applicable to welding of sheet steel 0.5-1.0 mm. thick. Quality of weld seam and width of heat-affected zone compare favorably with and sometimes surpass those obtained by other methods.

KILIMOV, A.P.; ZVEGINTSEVA, L.N.

Formation of hydrogen bonds between the angular analogs of acridine and proton donors. Izv. SO AN SSSR no.11 Ser.khim.nauk no.3:129-131 '63. (MIRA 17:3)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR, Krasnoyarsk.



L 19468-63 EPF(c)/EWT(m)/BDS AFFTC/ASD Pz-4 JD/WW/WH

ACCESSION NR: AT3002196 S/2901/63/001/000/0072/0077

Card 1/2

KILIMOV, A.P.; ZVEGINTSEVA, L.N.

Effect of small quantities of water on the luminescence spectra of 5,6-benzoquinoline solutions in p-dioxane. Opt.i spektr. 13 no.2:285-287 Ag '62. (MIRA 15:11)
(Benzoquinoline--Spectra) (Dioxane)

ZVEJSKA, M.

H-5

COUNTRY : Czechoslovakia
CATEGORY :

ABS. JOUR. : RZKhim., No.5 1960, No. 18309

AUTHOR : Zvejska, M., Sykora, M., and Ryska, A.
INST. : Not given
TITLE : Study on the Treatment of Sewage in a Socialist City

ORIG. PUB. : Vodni Hospod, No 7, 293-297 (1959)

ABSTRACT : The authors have studied the operation of the biochemical sewage treatment plant (trickling filters, methane tank) in Ostrava-Stalingrad which processes only municipal sewage. Data are given on the fluctuation in the discharge, chemical composition (dry residue, BOD, total oxygen demand, pH, alkalinity, total N, Cl^-), and bacterial pollution of the sewage in the course of a typical day. The operation of the treatment plant is described.

M. Lapshin

CARD: 1/1

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ZVEJSKA, M., SYKORA, M., RSYKA, A.

Investigation and treatment of sewage from socialist residential areas; p. 293.

VODNI HOSPODARSTVI. Czechoslovakia, No. 7, July 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, Sep 1959
Uncl.

MOCHALIN, Mikhail Panteleymonovich; ZVEKOV, Vladimir Afanas'yevich; AGOSHKOV, M.I., nauchnyy red.; ASTAKHOV, A.V., red. izd-va; BOLDYREVA, Z.A., tekhn. red.

[Self-propelled equipment in mines] Samokhodnoe oborudovanie na rudnikakh. Pod nauchn. red. M.I.Agoshkova. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 391 p. (MIRA 14:12)

1. Chlen-korrespondent AN SSSR (for Agoshkov).
(Mining machinery)

BURTSEV, L.I., kand.tekhn.nauk; ZVEKOV, V.A., gornyy inzh.; LUNEV, I.N., gornyy inzh.

Flow sheets for chamber and pillar systems using self-propelled equipment. Gor.zhur. no.10:3-11 O '64. (MIRA 18:1)

1. Institut gornogo dela im. A.A.Skochinskogo (for Zvekov).
2. Kombinat "Achpolimetall" (for Lunev).

BAZER, Ya.L., inzh.; KORSHUNOV, Ya.V., inzh.; ZVEKOV, V.A.

PNB-3 self-propelled loader. Gor. zhur. no.6:55-56 Je '62. (MIRA 15:11)

1. Gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy institut ugol'nogo mashinostroyeniya (for Bazer, Korshunov).
2. Institut gornogo dela im. Skochinskogo, Moskva (for Zvekov).
(Mining machinery)

[redacted], K.

Economic and social conditions of the Nilgiri tribes. p. 236.
CESKOSLOVENSKA ETHNOGRAFIE. Praha.
Vol. 3, no. 3, 1955

SOURCE: Monthly List of East European Accessions (EEAL), LC, Vol. 5, No. 3, March 1956

GONCHARUK, M. [reviewer]; KVELIDOVSKAYA, S.; SOLOV'YEV, P.; CHISTYAKOV, D.; GUS'KOV, V. [authors].

"Builders discuss their own work." S.Kvelidovskaia, P.Solov'ev, D.Chistiakov, V.Gus'kov. Reviewed by M.Goncharuk. Sov.profsoiuzy 1 no.3:89-91 N '53. (MLRA 6:12)

(Building) (Kvelidovskaia,S.) (Solov'ev,P.)

DELYAGIN, N.N.; SHPINEL', V.S.; BRYUKHANOV, V.A.; EVENGLINSKIY, B.

Nuclear Zeeman effect in Sn^{119}. Zhur. eksp. i teor. fiz. 39 no.3:894-896 S '60. (MIRA 13:10)

1. Moskovskiy gosudarstvennyy universitet.
(Magnetooptics) (Tin) (Gamma rays)

DELYAGIN, N.N.; SHPINEL', V.S.; BRYUKHANOV, V.A.; ZVEREVINSKIY, B.

Hyperfine structure of gamma rays caused by quadrupole interaction in the crystal lattice. Zhur. eksp. i teor. fiz. 39 no. 1:220-222 Jl '60. (MIRA 13:12)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.
(Gamma rays) (Crystal lattices)

BRYUKHANOV, V.A.; DELYAGIN, N.N.; ZVENGLINSKIY, B.; SHPINEL', V.S.

Energy shift of gamma-ray transition observed in the resonance absorbtion of γ-quanta in crystals. Zhur. eksp. i teor. fiz. 40 no.2:713-714 F '61. (MIRA 14:7)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

(Gamma rays)

81972

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B006/B070

24.6210

AUTHORS: Delyagin, N. N., Shpinel', V. S., Bryukhanov, V. A., Zvenglinskiy, B.

TITLE: Nuclear Zeeman Effect in Sn^{119}

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 3(9), pp. 894 - 895

TEXT: The present "Letter to the Editor" is the continuation of a previous paper (Ref.4) in which the authors reported on measurements of the dependence of resonance absorption of 23.8-kev gamma quanta emitted in the Sn^{119m} decay on the velocity of the source relative to the absorber. The authors have again carried out analogous measurements, but this time the absorber was placed in an external constant magnetic field. In this case, a Zeeman splitting of the absorption line took place, and a hyperfine splitting was observed in the spectrum, from which the magnetic moment of the excited 23.8 kev level of Sn^{119} could be determined. The

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Nuclear Zeeman Effect in Sn^{119}

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gamma source was a foil of white metallic tin (94% of Sn^{118}) exposed to thermal neutron irradiation in a reactor. The absorber was $SnNb_3$ in which no quadrupole splitting of the 23.8 kev level takes place according to Ref. 4. Thus, the observed hyperfine splitting of the absorption line is only a consequence of the Zeeman effect. For the measurements, the source and the absorber were cooled to nitrogen temperature. The absorber (20 mg/cm^2 $SnNb_3$) was placed between the pole pieces of a magnet producing a constant magnetic field of 12,150 oe in the absorber, and the measurements were made with and without a magnetic field. The ground level is split in two and the excited one (3/2) in four sublevels under the action of the field. 6 M1 transitions are possible between these. By changing the velocity of the source (positive a d negative velocity) 12 lines must be observable. The shape of the absorption spectrum is dependent on the magnetic moments $|\mu_0|$ and $|\mu|$ of the ground and excited states of the Sn^{119} nucleus; on the relative signs of these moments; and on the quadrupole splitting Δ of the excited state. The results of the measurements are represented in a diagram

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Nuclear Zeeman Effect in Sn^{119}

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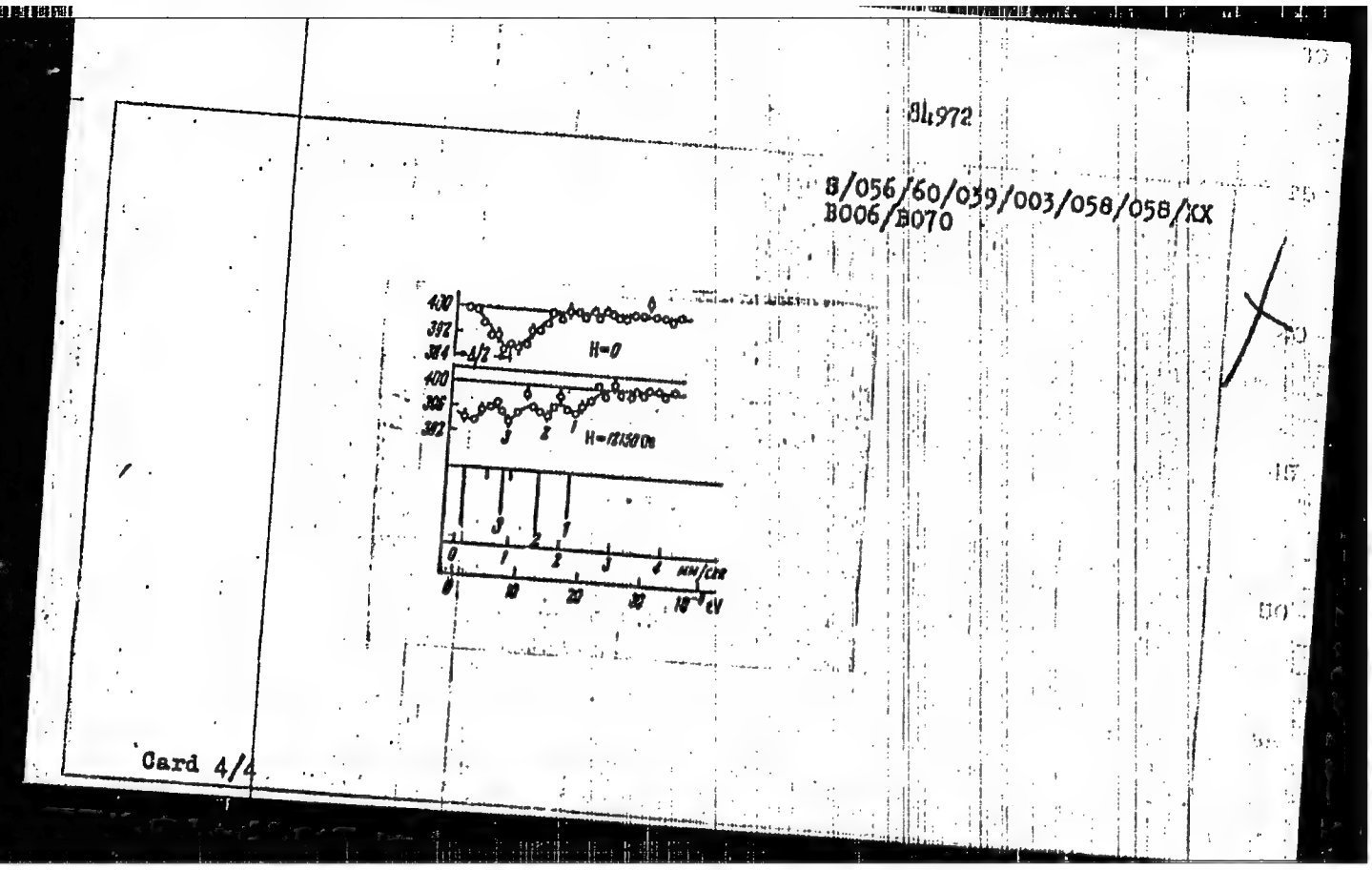
B006/B070

(ordinate : counting rate; abscissa : velocity of the source and the corresponding energy shift). The distance between the hyperfine structure components was determined from the spectral measurement to be $\Delta = (1.2\pm0.2).10^{-7}$ ev. This is in good agreement with the value obtained in Ref. 4. From the positions of the three maxima, μ_o was found to be $-(1.1\pm0.3)$ nuclear magnetons and the moment of the 23.8 kev level to be $\mu = +(1.9\pm0.4)$ nuclear magnetons. This value is considerably higher than that given by the single-particle model. A. I. Alikhanov and V. A. Lyubimov are mentioned. There are 1 figure and 5 references: 3 Soviet, 1 German, and 1 French.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: July 4, 1960

Card 3/4



S/120/62/000/001/003/061
E032/E514

AUTHORS: Bryukhanov, V.A., Delyagin, N.N., Zvenglinskiy, B., Sorgeyev, S.A. and Shpinel', V.S.

TITLE: Measurement of the resonance absorption spectra of gamma-rays in crystals

PERIODICAL: Pribory i tekhnika eksperimenta, no.1, 1962, 23-28

TEXT: In a previous paper (Ref.5: Zh.eksperim. i teor.fiz., 1960, 39, 220; Ibid 40, 713) the authors described an apparatus which was used to investigate the Mössbauer effect (23.8 kV gamma-rays on Sn^{119} nuclei in crystals). In this apparatus the relative velocity of the source and the absorber is varied linearly with time with the aid of a mechanical device and the intensity of the gamma-rays corresponding to different values of this velocity is recorded with a multi-channel kicksorter and an amplitude modulator working in synchronism with the device producing the above velocity variation. In the present note the authors give a more detailed description of the apparatus, including both the mechanical and the electronic parts of it. A typical absorption spectrum for a SnO_2 crystal (9 mg/cm^2 target

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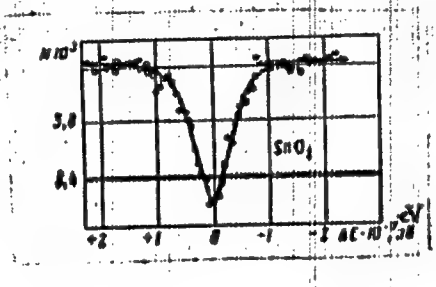
and 6 mg/cm^2 source, both at room temperature) is shown in Fig.6. It is reported that the width of the 23.8 keV excited state of Sn^{119} is (2.6 ± 0.25) x 10^{-8} eV. There are 6 figures.

ASSOCIATION: Institut yadernoy fiziki MGU
(Institute of Nuclear Physics MGU)

SUBMITTED: June 15, 1961

Fig.6



Card 2/2

ERYUKHANOV, V.A.; DELYAGIN, N.N.; ZVENGLINSKIY, B.; SERGEYEV, S.A.; SHPINEL', V.S.

Measuring spectra of gamma-ray quanta resonance absorption in crystals. Prib.i tekh.eksp. 7 no.1:23-28 Ja-F '62. (MIRA 15:3)

1. Institut yadernay fiziki Moskovskogo gosudarstvennogo universiteta.
(Gamma-ray spectrometry)

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B006/B063

24.6520

AUTHORS: Delyagin, N. N., Shpinel', V. S., Bryukhanov, V. A., Zvenglinskiy, B.

TITLE: The Hyperfine Structure of γ-Rays, Produced by Quadrupole Interaction in the Crystal Lattice

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 1(7), pp. 220-222

TEXT: In the introduction to this article the authors describe several publications dealing with the above-mentioned subject. A. I. Alikhanov and V. A. Lyubimov (Ref. 5) studied the resonance absorption of 23.8-kev gamma quanta of Sn^{119} nuclei. The authors themselves studied the hyperfine structure of the 23.8-kev level of this nucleus. The hyperfine structure is due to the interaction between the quadrupole moment of the nucleus in the excited state and the internal electric field of the tin crystal. Metallic Sn^{119m} served as source, which moved relative to the absorber. Contrary to similar experiments, the source used here

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The Hyperfine Structure of γ-Rays, Produced by Quadrupole Interaction in the Crystal Lattice

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underwent linear acceleration within certain limits. Measurements were carried out at the temperatures of liquid nitrogen. The X-radiation of tin (26 kev) was almost completely absorbed by a palladium film 0.06 mm thick. The γ-quanta passing through this filter were recorded by means of an NaI(Tl) crystal. The pulses coming from the single-channel pulse-height analyzer were linearly phase-modulated in a radio device, viz. simultaneously with the changes in the source velocity. The modulated pulses were fed into a 100-channel pulse-height analyzer of the type АИ-100 (AI-100). Each channel corresponded to a certain velocity of the source. The measurements were made with two absorbers containing Sn^{119}, namely, metallic tin and $SnNb_3$ alloy. The dependence of resonance absorption on the velocity of the source for a tin specimen 20 mg/cm^2 thick is shown in the upper part of the Fig. on p. 221. The curve has three peaks at 0 and ±1.46 mm/sec (velocity of the source). This corresponds to a hyperfine structure of the 23.8-kev level, and is explained by the interaction between the quadrupole moment of the nucleus in the excited state (spin 3/2) and the electric field of the crystal.

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The Hyperfine Structure of γ-Rays, Produced by Quadrupole Interaction in the Crystal Lattice

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This interpretation is confirmed by measurements with the $SnNb_3$ absorber (30 mg/cm^2), which are illustrated in the lower part of the Fig. The spacing Δ of the components of the hyperfine structure was $\Delta = (eQ/2)\partial^2V/\partial z^2 = (1.15\pm0.25)\cdot10^{-7}$ ev. There are 1 figure and 6 references: 2 Soviet, 2 German, and 2 US.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of Moscow State University)

SUBMITTED: May 25, 1960

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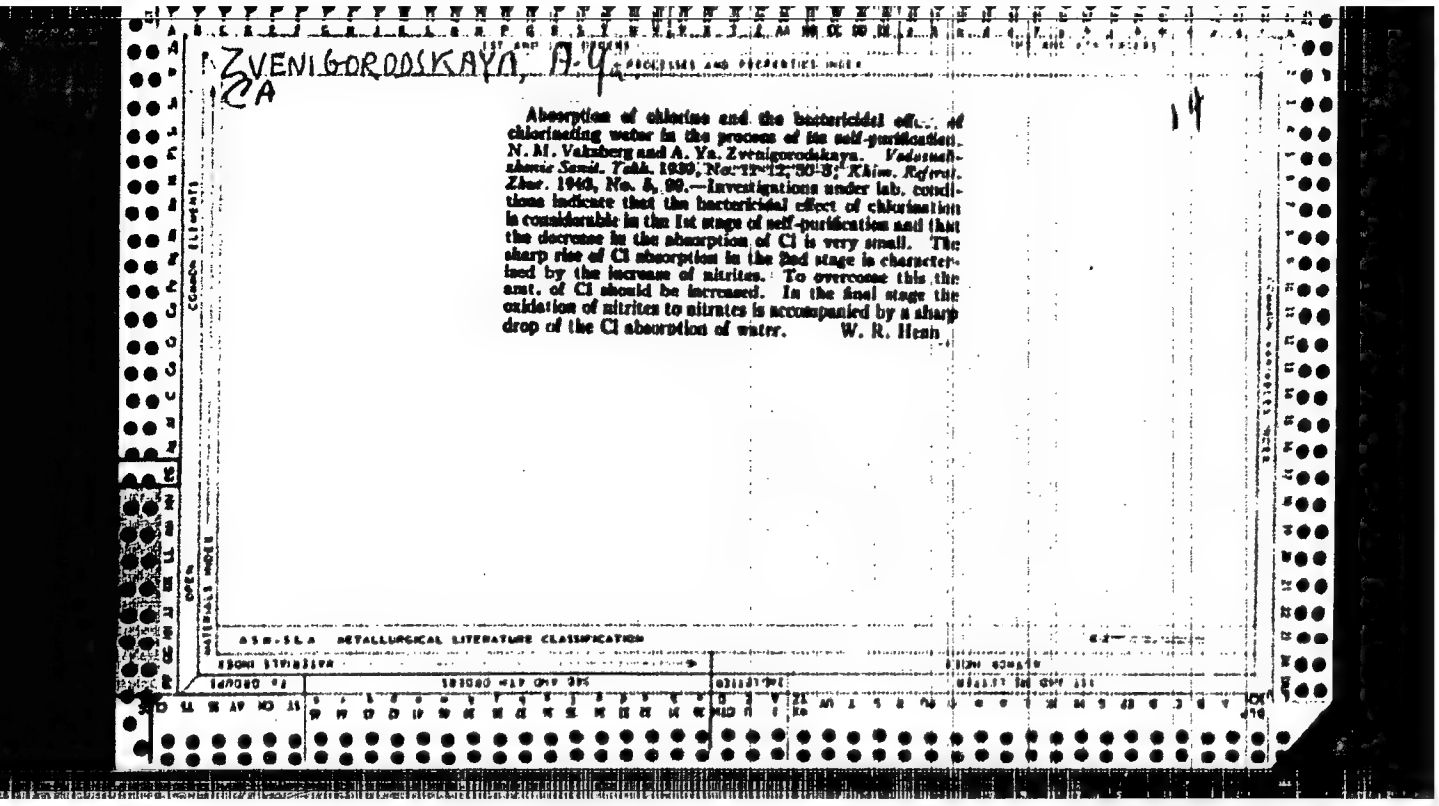


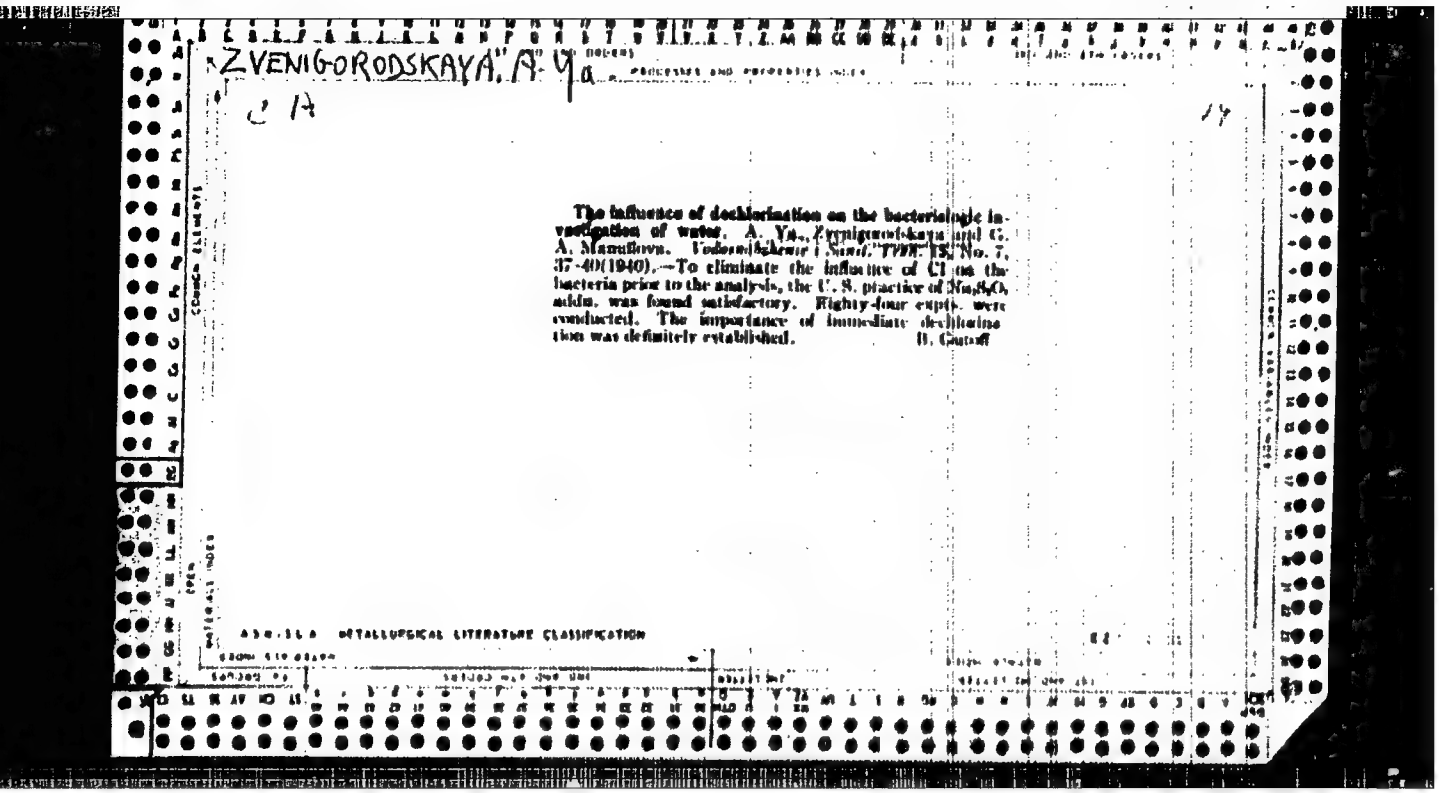
ZVENIGORODSKAYA, A. Ya.

CA

14

Absorption of chlorine and the bactericidal effect of chlorinating water in the process of its self-purification. N. M. Valnberg and A. Ya. Zvenigorodskaya. *Vodosnabzhenie Sanit. Tekh.* 1939, No. 12, 30-3; *Khim. Referat. Zhur.* 1940, No. 5, 99.—Investigations under lab. conditions indicate that the bactericidal effect of chlorination is considerable in the 1st stage of self-purification and that the decrease in the absorption of Cl is very small. The sharp rise of Cl absorption in the 2nd stage is characterized by the increase of nitrites. To overcome this the amt. of Cl should be increased. In the final stage the oxidation of nitrites to nitrates is accompanied by a sharp drop of the Cl absorption of water. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



ZVENIGORODSKAYA, A. Ya.

The influence of dechlorination on the bacteriologic investigation of water. A. Ya. Zvenigorodskaya and G. A. Mamaltova. *Vodosnabzhenie i Sanit. Tekh.* 15, No. 7, 37-40(1940).—To eliminate the influence of Cl on the bacteria prior to the analysis, the U. S. practice of $Na_2S_2O_3$ addn. was found satisfactory. Eighty-four expts. were conducted. The importance of immediate dechlorination was definitely established. H. Gutoff

A59.31A METALLURGICAL LITERATURE CLASSIFICATION

Geography & Geology

Methods for determination of cobalt and manganese;
Moskva, Gos. izd-vo geol. lit-ry, 1946.
(Metody issledovaniia poleznykh iskopaemykh, vyp. 12)

Monthly List of Russian Accessions, Library of Congress,
May, 1952. UNCLASSIFIED.

FROLOV, A.G.; KOZLOVSKIY, S.I.; MELAMED, Z.M.; GERCHIKOV, I.S.; UVAROV, S.G.; ZVEHIGORODSKAYA, G.V.; KOSTAN'YAN, A.Ya., red.izd-va; SHEVCHENKO, G.N., tekhn. red.; PRUSAKOVA, T.A., tekhn. red.

[Principles for the improvement of industrial complexes on mine surfaces] Osnovy sovershenstvovaniia tekhnologicheskikh kompleksov poverkhnosti shakht. [By] A.G.Frolov i dr. Moskva, Izd-vo AN SSSR, 1963. 135 p. (MIRA 16:12)

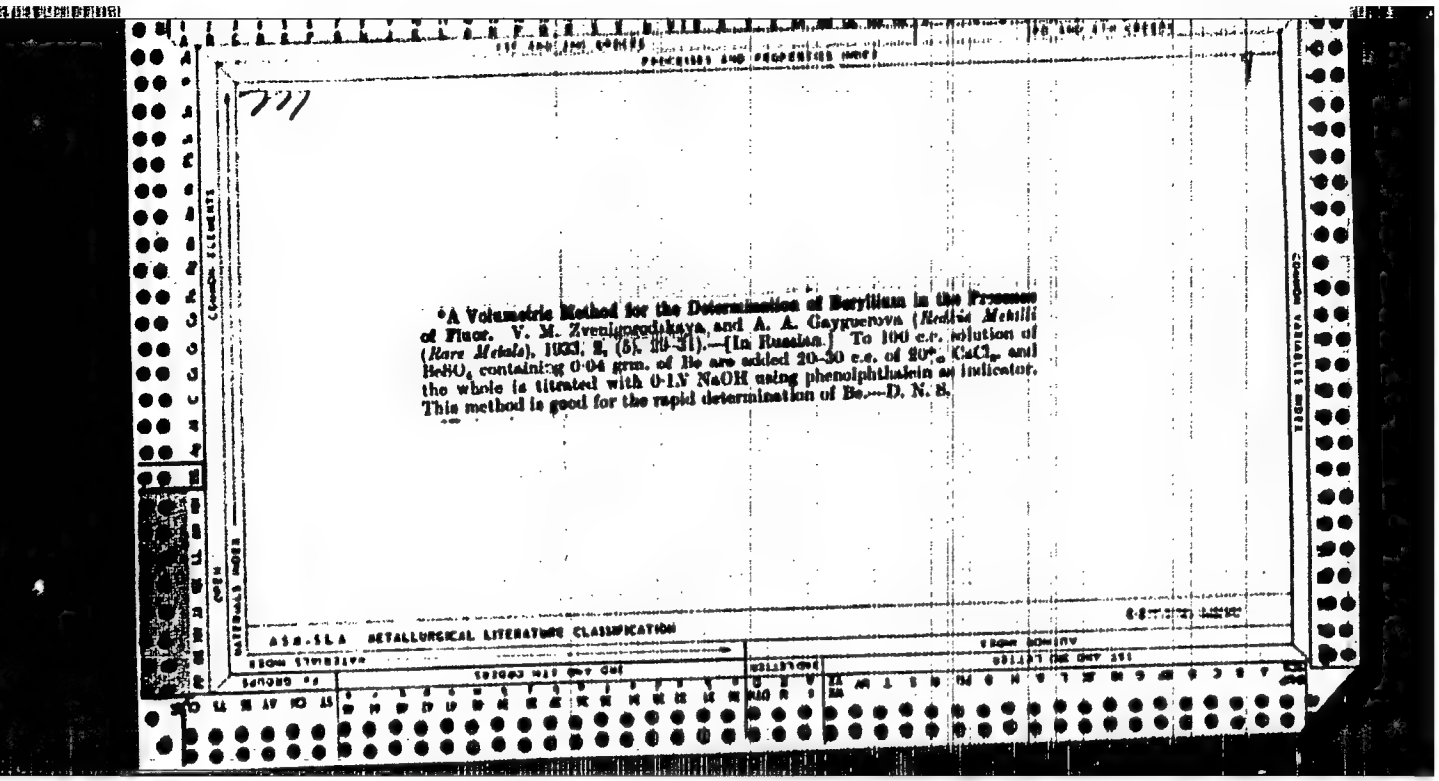
1. Moscow. Institut gornogo dela.
(Mine buildings)

ZVENIGORODSKIY, Iosif Solomonovich; FROLOV, Yuriy Aleksandrovich; KAYETANOVICH, M.M., red.

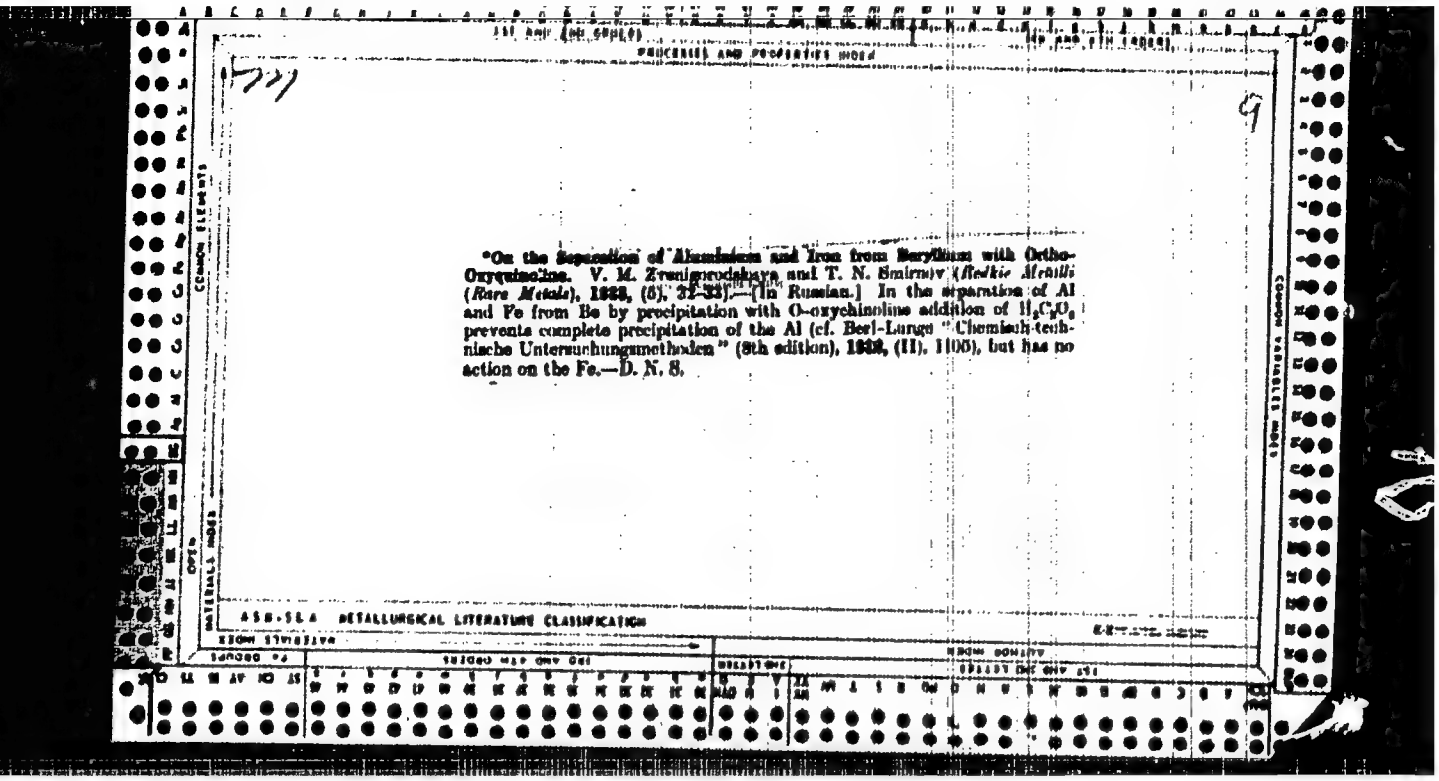
[Steel wires and busbars in electrical networks with ratings up to 1,000 volts] Stal'nye provoda i shiny v elektricheskikh setiakh do 1 000 v. Moskva, Izd-vo "Energiia," 1964. 55 p. (Biblioteka elektromontera, no.125) (MIRA 17:6)

ZVENIGORODSKAYA, M.Ya; LEVIN, F.D., redaktor; KALASHNIKOV, V.P., tekhnicheskiy redaktor

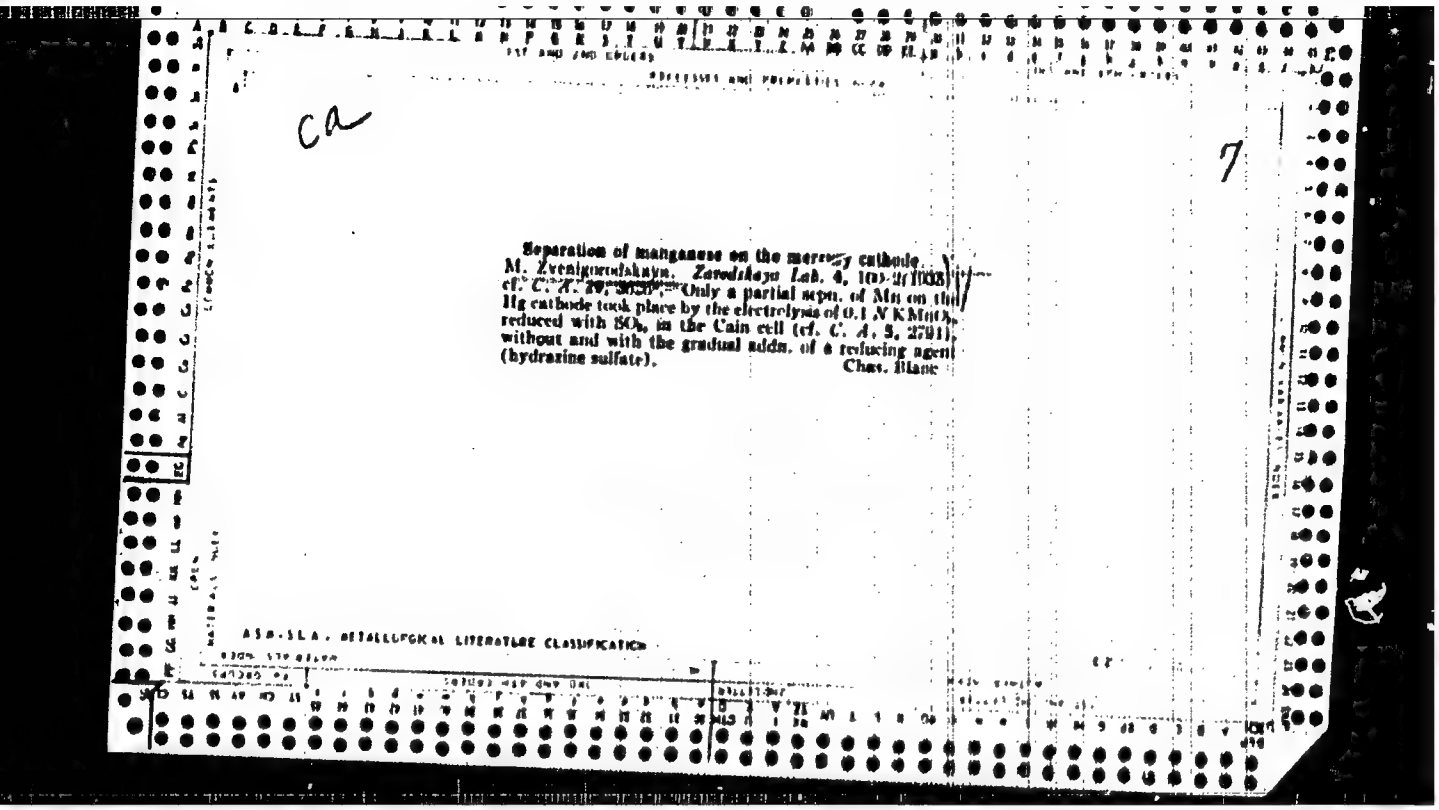
[Where to study; a manual for students entering higher and secondary schools for special studies (technical and vocational) in Moscow and Moscow Province in 1956] Kuda poiti uchit'sia; spravochnik dlia postupaiushchikh v vysshie, srednie spetsial'nye uchebnye zavedeniia (tekhnikumy, uchilishcha, shkoly) i tekhnicheskie uchilishcha Moskvay i Moskovskoi oblasti v 1956 godu. God izd. 10-i. [Moskva] Izd-vo "Moskovskaia pravda," 1956. 214 p. (MLRA 9:10)
(Moscow Province--Technical education--Directories)



"A Volumetric Method for the Determination of Beryllium in the Presence of Fluor. V. M. Zvenigorodskaya and A. A. Gayguerova (*Redkie Metalli* (*Rare Metals*), 1933, 2, (5), 30-31).—[In Russian.] To 100 c.c. solution of $BeSO_4$ containing 0·04 grm. of Be are added 20-30 c.c. of 20% $CaCl_2$, and the whole is titrated with 0·1*N* NaOH using phenolphthalein as indicator. This method is good for the rapid determination of Be.—D. N. S.



"On the Separation of Aluminium and Iron from Beryllium with Ortho-Oxyquinoline. V. M. Zvenigorodskaya and T. N. Smirnov (*Redkie Metalli* (*Rare Metals*), 1938, (5), 32-33).—[In Russian.] In the separation of Al and Fe from Be by precipitation with O-oxychinoline addition of $H_2C_2O_4$ prevents complete precipitation of the Al (cf. Berl-Lunge "Chemisch-technische Untersuchungsmethoden" (8th edition), 1932, (II), 1105), but has no action on the Fe.—D. N. S.



CA

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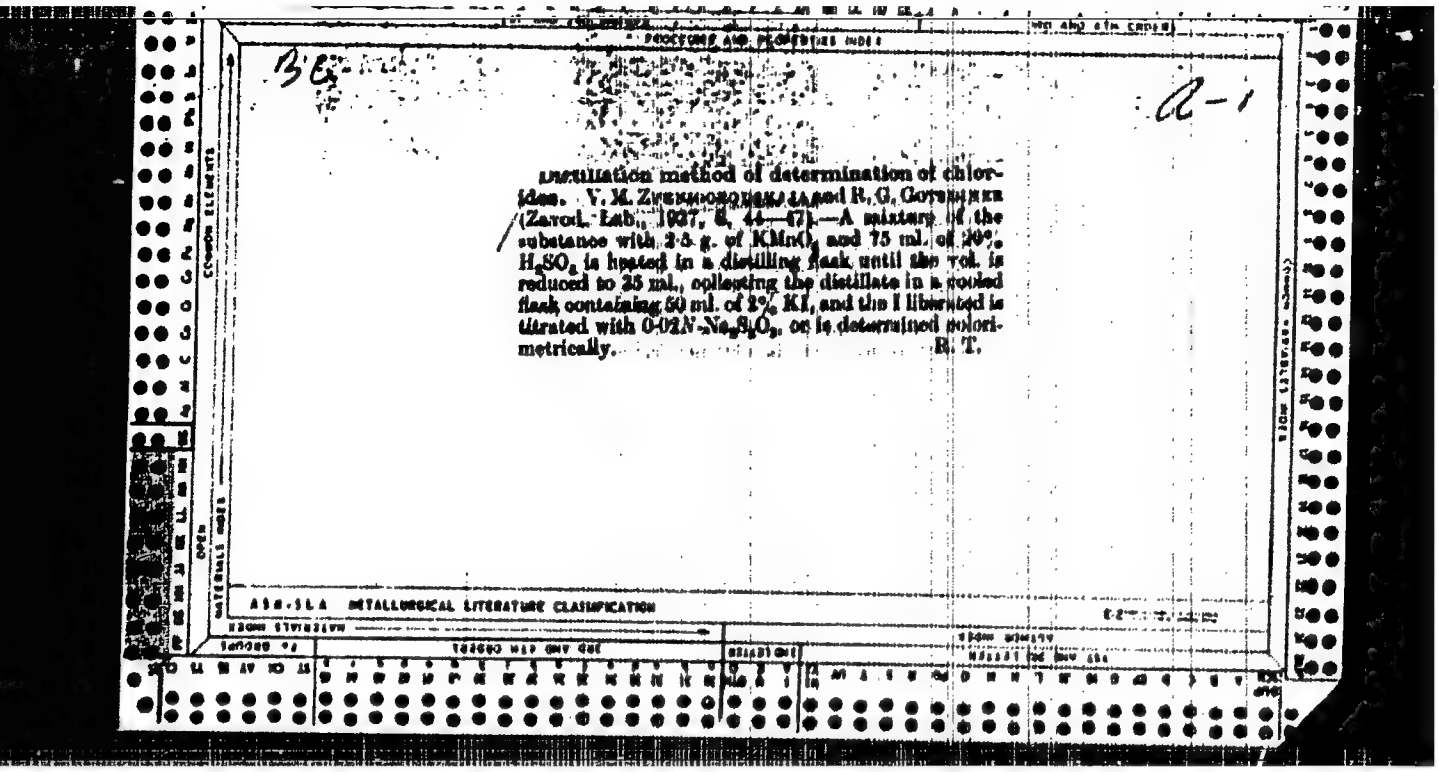
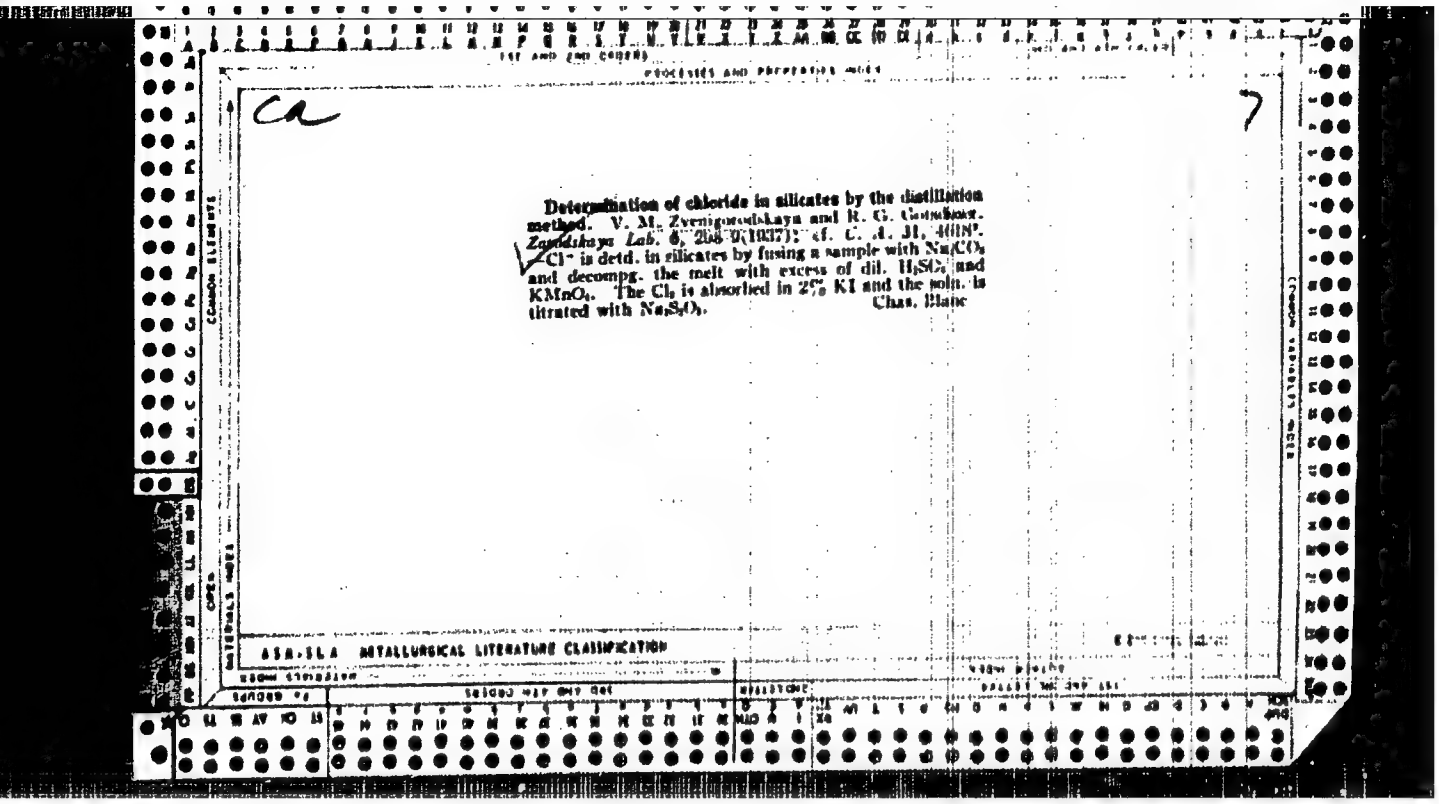
Separation of manganese on the mercury cathode. M. Zvenigorodskaya. *Zavodskaya Lab.* 4, 10[illegible]/1935); cf. *C. A.* 29, 3050. Only a partial sepn. of Mn on the Hg cathode took place by the electrolysis of 0.1 *N* KMnO$_4$ reduced with SO$_2$ in the Cain cell (cf. *C. A.* 3, 2791), without and with the gradual addn. of a reducing agent (hydrazine sulfate).
Chas. Blanc

ASB-SLA, METALLURGICAL LITERATURE CLASSIFICATION



Distillation method of determination of chlorides. V. M. Zvenigorodskaya and R. G. Gotsulskaya (Zavod. Lab., 1937, 6, 44—47).—A mixture of the substance with 2·5 g. of $KMnO_4$ and 75 ml. of 20% H_2SO_4 is heated in a distilling flask until the vol. is reduced to 25 ml., collecting the distillate in a cooled flask containing 50 ml. of 2% KI, and the I liberated is titrated with 0·02*N*-$Na_2S_2O_3$, or is determined colorimetrically. B. T.



Ca

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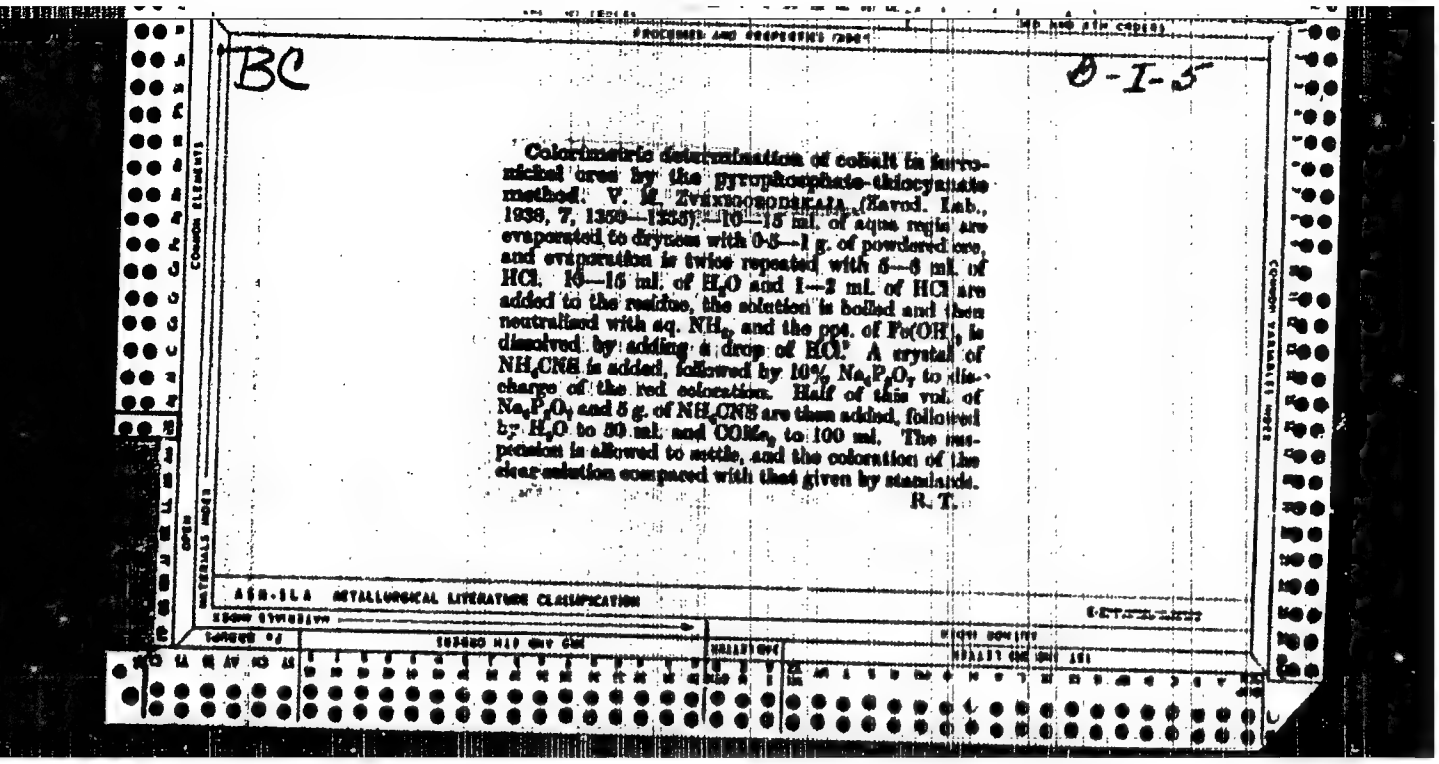
Determination of chloride in silicates by the distillation method. V. M. Zvenigorodskaya and R. G. Gorshkov. *Zavodskaya Lab.* 6, 208-9(1937); cf. C. A. 31, 4008⁹. Cl^- is detd. in silicates by fusing a sample with Na_2CO_3 and decomps. the melt with excess of dil. H_2SO_4 and $KMnO_4$. The Cl_2 is absorbed in 2% KI and the soln. is titrated with $Na_2S_2O_3$. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

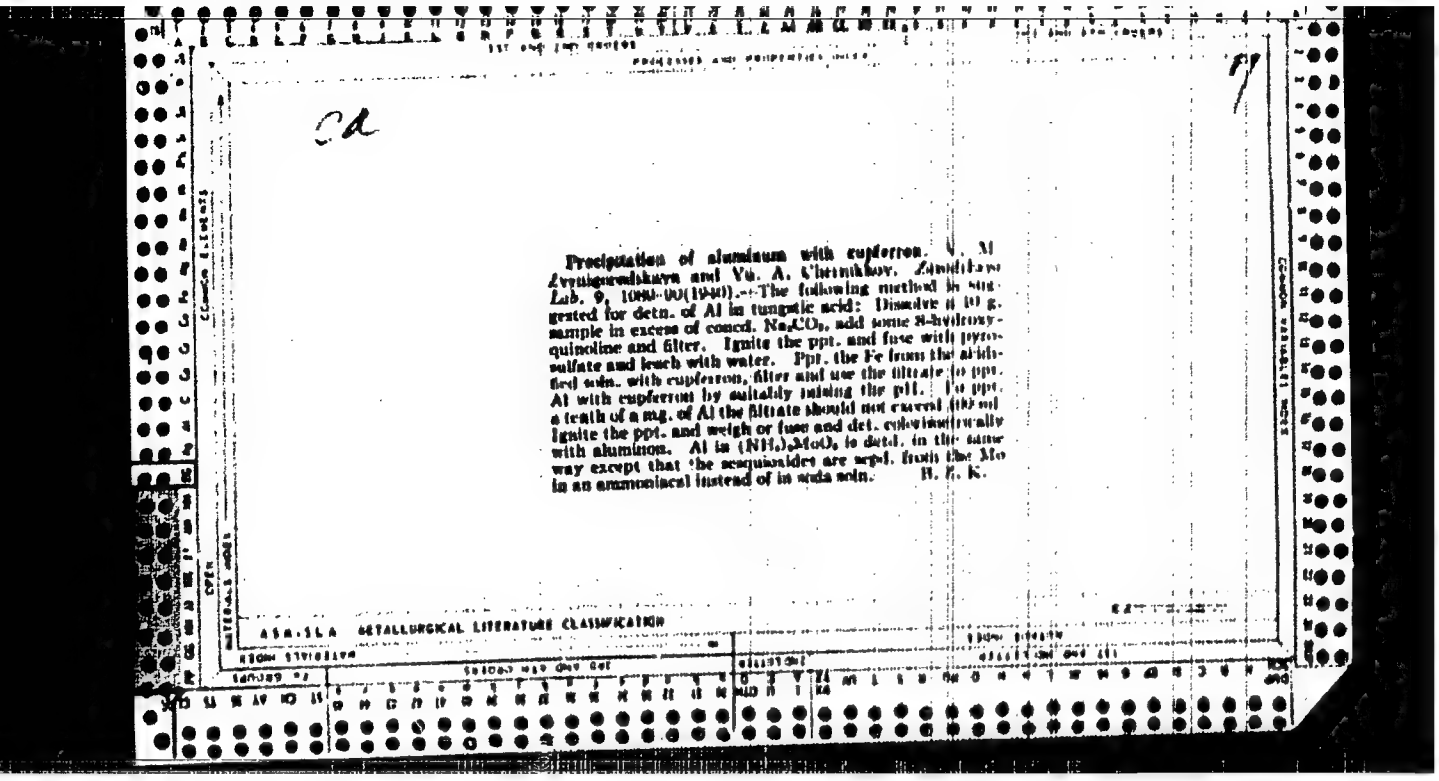


BC

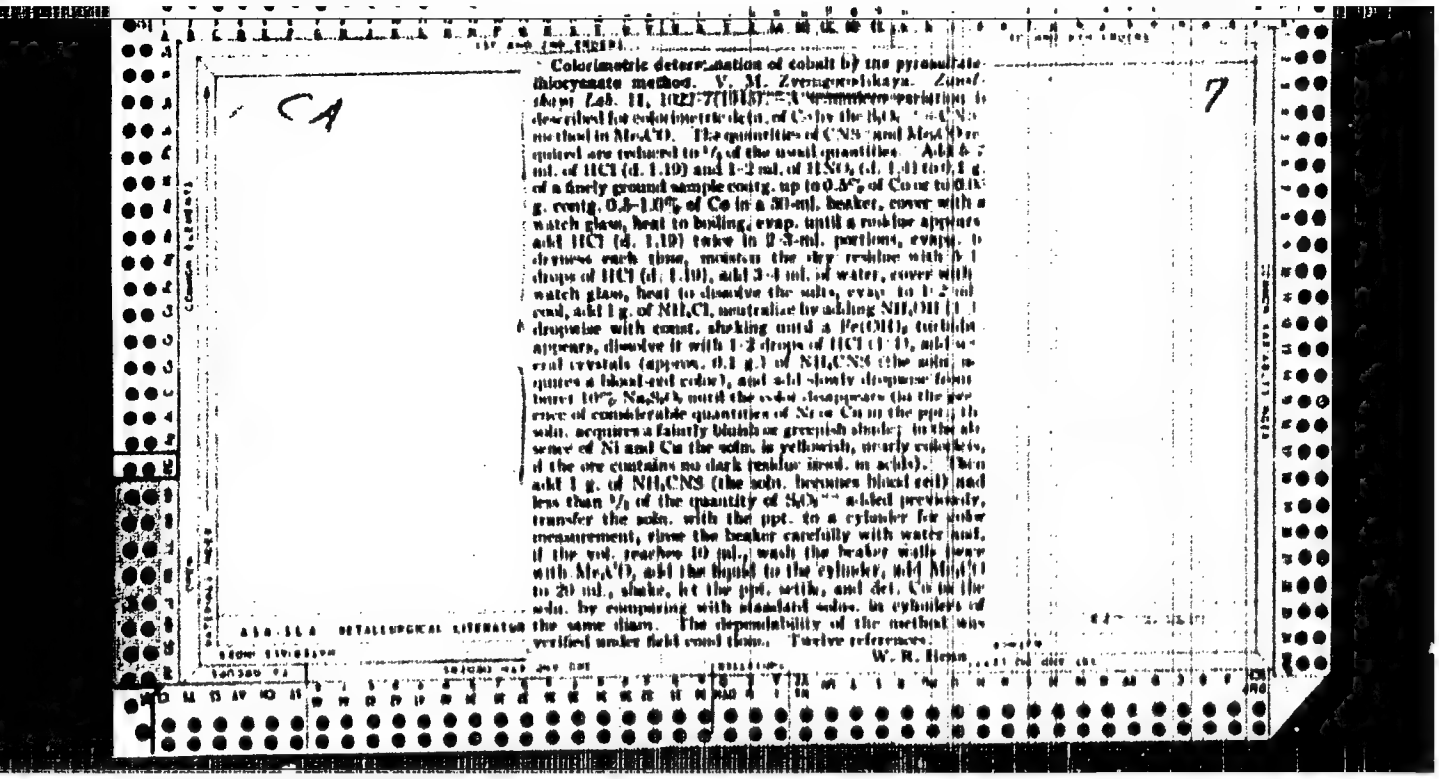
D-I-5

Colorimetric determination of cobalt in ferro-nickel ores by the pyrophosphate-thiocyanate method. V. M. Zvyagodnikaya. (Zavod. Lab., 1938, 7, 1350—1355).—10—15 ml. of aqua regia are evaporated to dryness with 0·5—1 g. of powdered ore, and evaporation is twice repeated with 5—6 ml. of HCl. 15—15 ml. of H_2O and 1—2 ml. of HCl are added to the residue, the solution is boiled and then neutralised with aq. NH_3, and the ppt. of $Fe(OH)_3$ is dissolved by adding a drop of HCl. A crystal of NH_4CNS is added, followed by 10% $Na_4P_2O_7$ to discharge of the red coloration. Half of this vol. of $Na_4P_2O_7$ and 5 g. of NH_4CNS are then added, followed by H_2O to 50 ml. and $COMe_2$ to 100 ml. The suspension is allowed to settle, and the coloration of the clear solution compared with that given by standards.

R. T.



Precipitation of aluminum with cupferron. V. M. Zvyagintsevskaya and Yu. A. Chernikhov. *Zavodskaya Lab.* 9, 1080-00(1940).—The following method is suggested for detn. of Al in tungstic acid: Dissolve a 10 g. sample in excess of concd. Na_2CO_3, add some 8-hydroxyquinoline and filter. Ignite the ppt. and fuse with pyrosulfate and leach with water. Ppt. the Fe from the acidified soln. with cupferron, filter and use the filtrate to ppt. Al with cupferron by suitably raising the pH. To ppt. a tenth of a mg. of Al the filtrate should not exceed 100 ml. Ignite the ppt. and weigh or fuse and det. colorimetrically with aluminon. Al in $(NH_4)_2MoO_4$ is detd. in the same way except that the sesquioxides are sepd. from the Mo in an ammoniacal instead of in soda soln. B. Z. K.



CA

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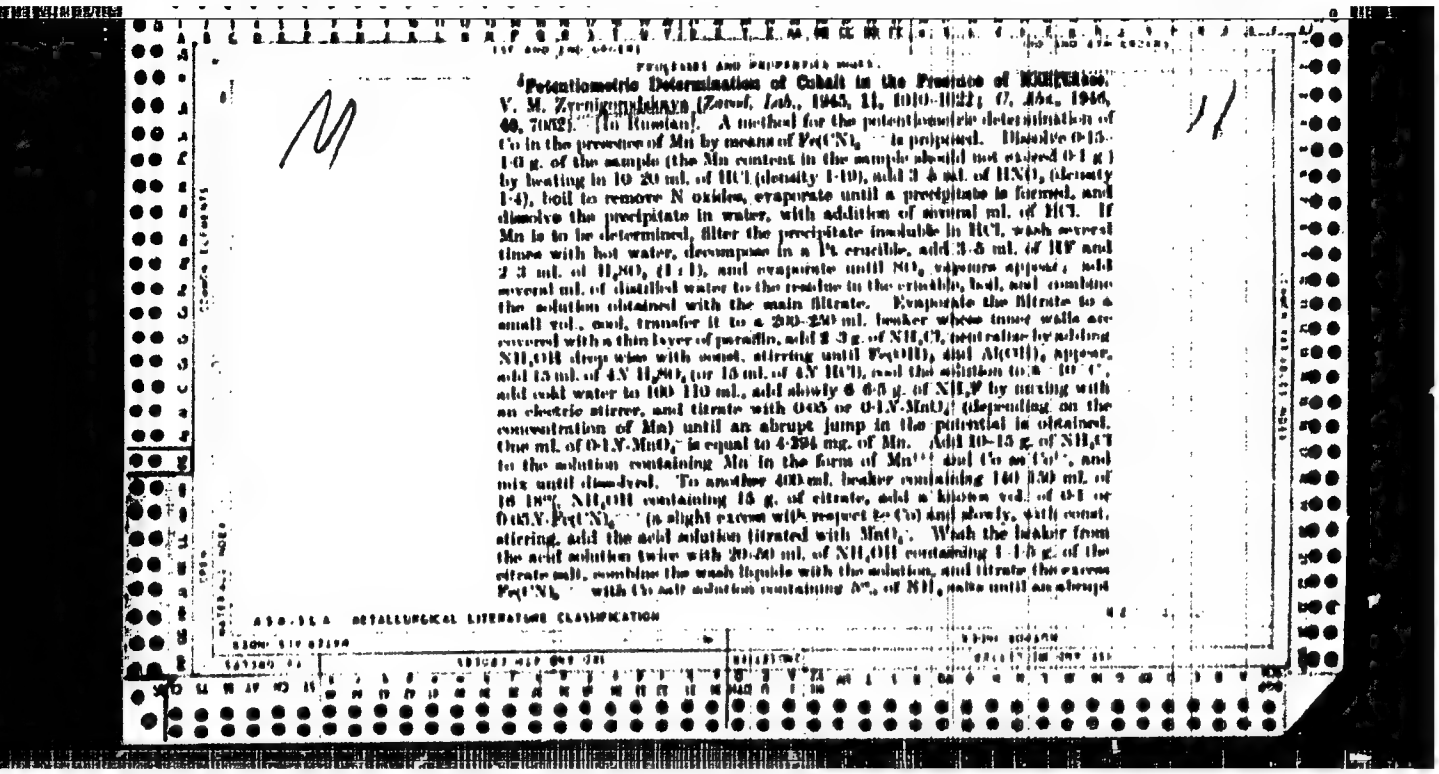
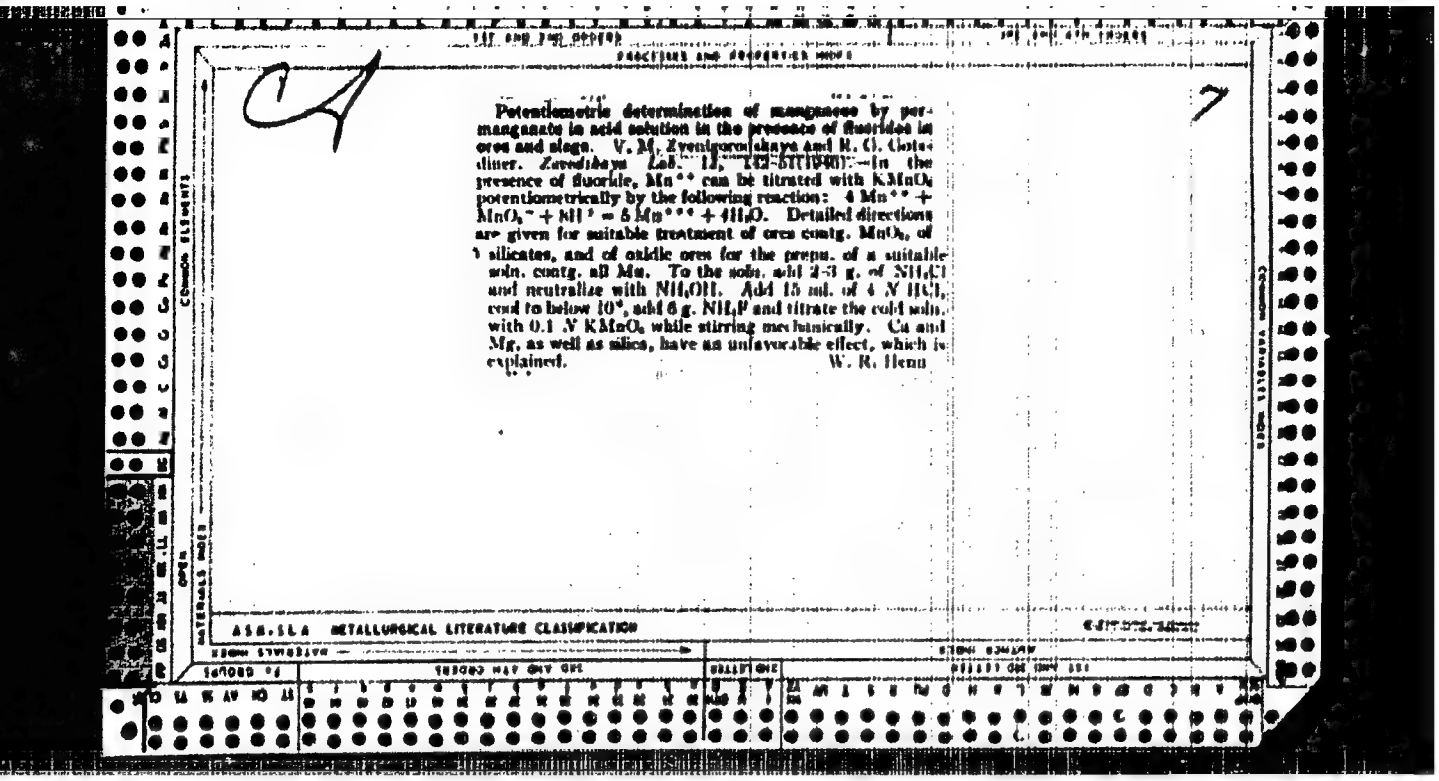
Colorimetric determination of cobalt by the pyroantimoniate thiocyanate method. V. M. Zvenigorodskaya. *Zavodskaya Lab.* 11, 1022-7(1945).—A semimicro procedure is described for colorimetric detn. of Co by the H_2O_2–$KCNS$ method in Me_2CO. The quantities of CNS^- and Me_2CO required are reduced to 1/5 of the usual quantities. Add 5–7 ml. of HCl (d. 1.19) and 1–2 ml. of H_2SO_4 (d. 1.01 to 0.1 g. of a finely ground sample contg. up to 0.5% of Co or to 0.1 g. contg. 0.5–1.0% of Co in a 50-ml. beaker, cover with a watch glass, heat to boiling, evap. until a resinlike appears add HCl (d. 1.19) twice in 2–3-ml. portions, evap. to decrease each time, moisten the dry residue with 5–7 drops of HCl (d. 1.19), add 3–4 ml. of water, cover with watch glass, heat to dissolve the salts, evap. to 1–2 ml. cool, add 1 g. of NH_4Cl, neutralize by adding NH_4OH (1:1) dropwise with const. shaking until a $Fe(OH)_3$ turbidity appears, dissolve it with 1–2 drops of HCl (1:1), add several crystals (approx. 0.1 g.) of NH_4CNS (the soln. acquires a blood-red color), and add slowly dropwise from buret 10% $Na_2S_2O_5$ until the color disappears (in the presence of considerable quantities of Ni or Cu in the ppt.) the soln. acquires a fairly bluish or greenish shade; in the absence of Ni and Cu the soln. is yellowish, nearly colorless, if the ore contains no dark residue insol. in acids). Then add 1 g. of NH_4CNS (the soln. becomes blood-red) and less than 1/5 of the quantity of $S_2O_5^{--}$ added previously, transfer the soln. with the ppt. to a cylinder for color measurement, rinse the beaker carefully with water and, if the vol. reaches 10 ml., wash the beaker walls (more with Me_2CO), add the liquid to the cylinder, add Me_2CO to 20 ml., shake, let the ppt. settle, and det. Co in the soln. by comparing with standard solns. in cylinders of the same diam. The dependability of the method was verified under field conditions. Twelve references.

W. R. Henn

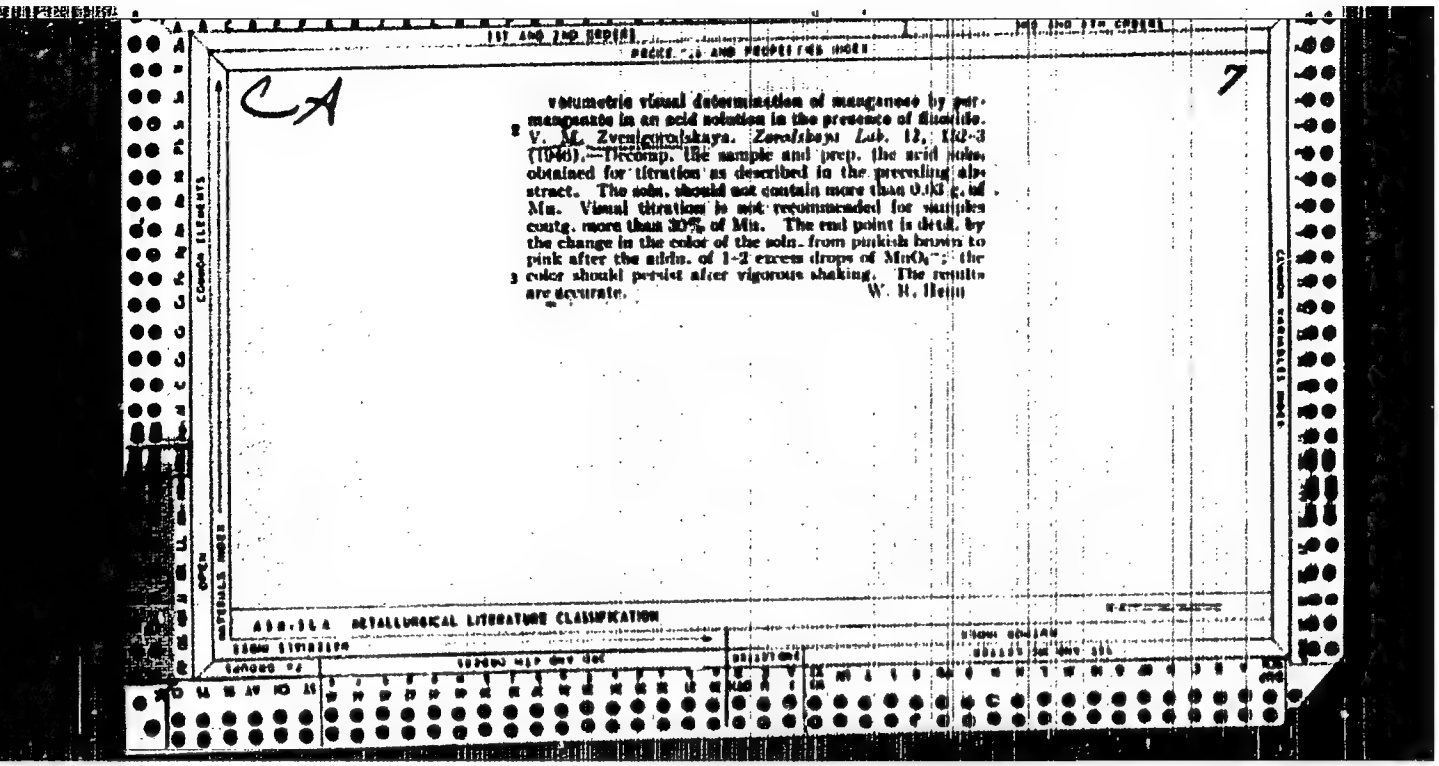


Potentiometric Determination of Cobalt in the Presence of [illegible].
V. M. Zvenigorodskaya (*Zavod. Lab.*, 1965, 11, 1010–1022; *C. Abs.*, 1966, 60, 7002). [In Russian]. A method for the potentiometric determination of Co in the presence of Mn by means of $Fe(CN)_6^{4-}$ is proposed. Dissolve 0·15–1·0 g. of the sample (the Mn content in the sample should not exceed 0·1 g.) by heating in 10–20 ml. of HCl (density 1·19), add 3–5 ml. of HNO_3 (density 1·4), boil to remove N oxides, evaporate until a precipitate is formed, and dissolve the precipitate in water, with addition of several ml. of HCl. If Mn is to be determined, filter the precipitate insoluble in HCl, wash several times with hot water, decompose in a Pt crucible, add 3–5 ml. of HF and 2–3 ml. of H_2SO_4 (1 : 1), and evaporate until SO_3 vapours appear; add several ml. of distilled water to the residue in the crucible, boil, and combine the solution obtained with the main filtrate. Evaporate the filtrate to a small vol., cool, transfer it to a 200–250 ml. beaker whose inner walls are covered with a thin layer of paraffin, add 2–3 g. of NH_4Cl, neutralise by adding NH_4OH drop-wise with const. stirring until $Fe(OH)_3$ and $Al(OH)_3$ appear, add 15 ml. of 4N H_2SO_4 (or 15 ml. of 4N HCl), cool the solution to 5–10°, add cold water to 100–110 ml., add slowly 6–6·5 g. of NH_4F by mixing with an electric stirrer, and titrate with 0·05 or 0·1N-MnO_4^- (depending on the concentration of Mn) until an abrupt jump in the potential is obtained. One ml. of 0·1N-MnO_4^- is equal to 4·294 mg. of Mn. Add 10–15 g. of NH_4Cl to the solution containing Mn in the form of Mn^{++} and Co as Co^{++}, and mix until dissolved. To another 400 ml. beaker containing 140–150 ml. of 16–18% NH_4OH containing 15 g. of citrate, add a known vol. of 0·1 or 0·05N-$Fe(CN)_6^{4-}$ (a slight excess with respect to Co) and slowly, with const. stirring, add the acid solution titrated with MnO_4^-. Wash the beaker from the acid solution twice with 20–30 ml. of NH_4OH containing 1–1·5 g. of the citrate sol., combine the wash liquids with the solution, and titrate the excess $Fe(CN)_6^{4-}$ with the acid solution containing Mn^{++}, of MnO_4^- salts until an abrupt

A59-31A METALLURGICAL LITERATURE CLASSIFICATION



Potentiometric determination of manganese by permanganate in acid solution in the presence of fluorides in ores and slags. V. M. Zventsova-shaya and R. G. Gotselimer. *Zavodskaya Lab.* 12, 142-5(1946).—In the presence of fluoride, Mn^{++} can be titrated with $KMnO_4$ potentiometrically by the following reaction: $4Mn^{++} + MnO_4^- + 8H^+ = 5Mn^{+++} + 4H_2O$. Detailed directions are given for suitable treatment of ores contg. MnO_2, of silicates, and of oxidic ores for the prepn. of a suitable soln. contg. all Mn. To the soln. add 2-3 g. of NH_4Cl and neutralize with NH_4OH. Add 15 ml. of 4 *N* HCl, cool to below 10°, add 6 g. NH_4F and titrate the cold soln. with 0.1 *N* $KMnO_4$ while stirring mechanically. Cu and Mg, as well as silica, have an unfavorable effect, which is explained. W. R. Henn



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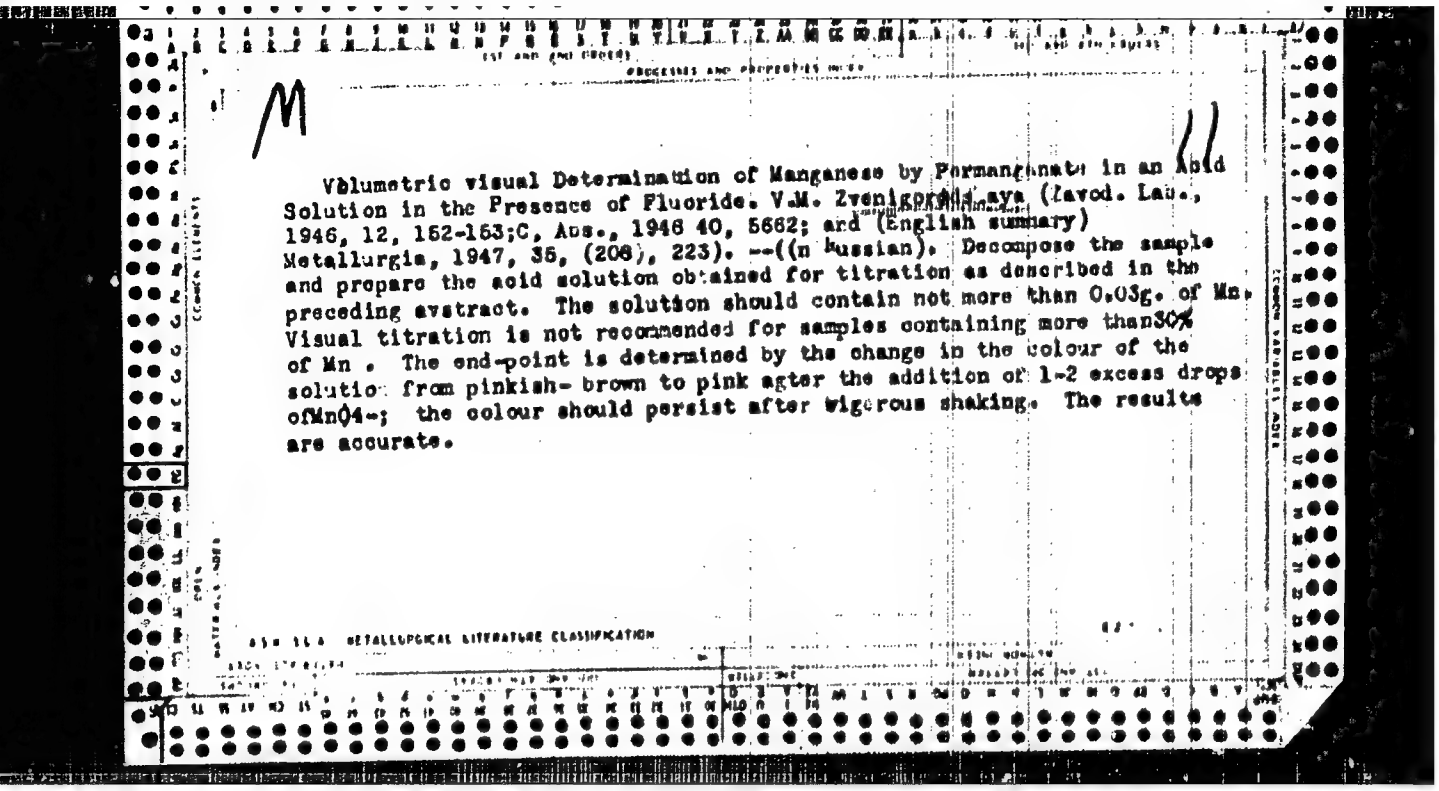
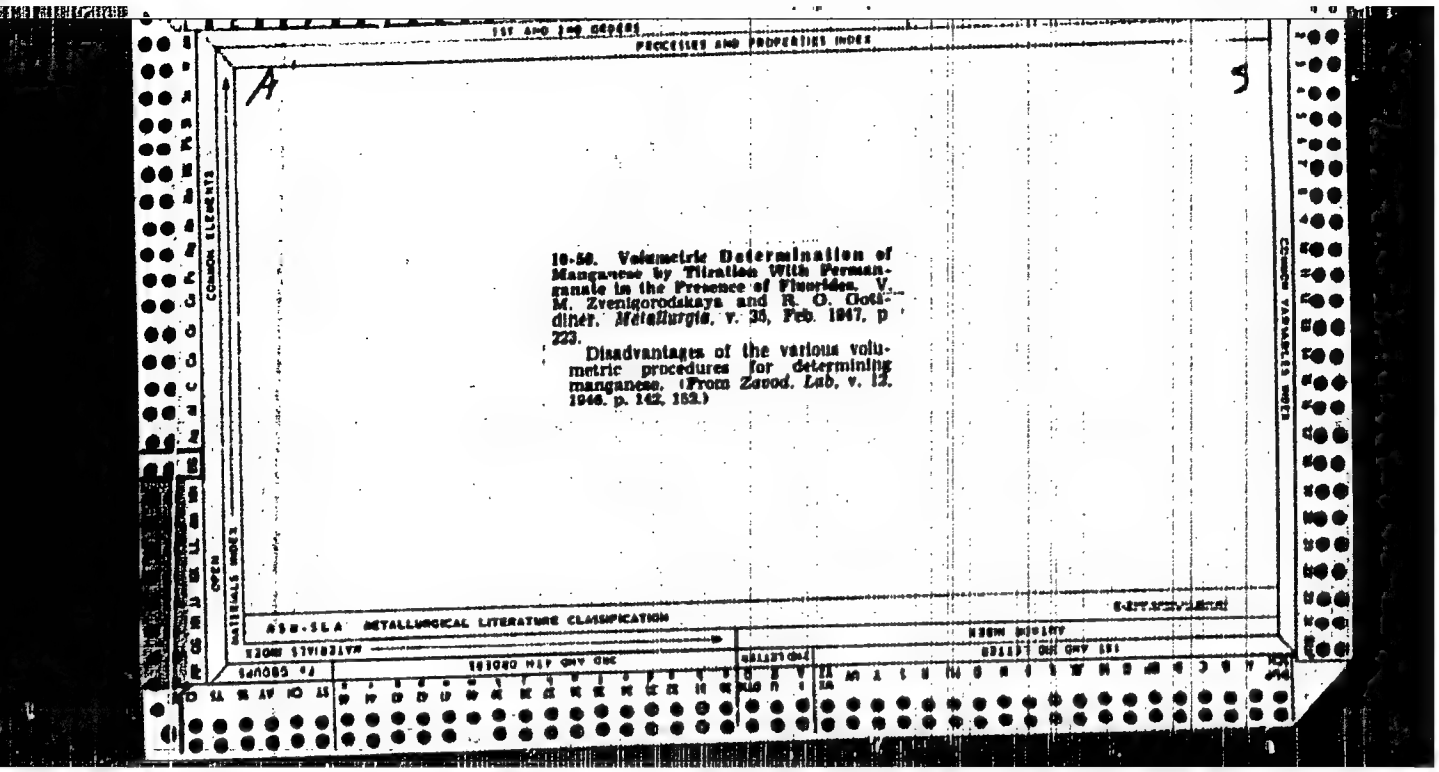
volumetric visual determination of manganese by permanganate in an acid solution in the presence of fluoride. V. M. Zvenigorodskaya. *Zavodskaya Lab.* 12, 132-3 (1946).—Decomp. the sample and prep. the acid soln. obtained for titration as described in the preceding abstract. The soln. should not contain more than 0.03 g. of Mn. Visual titration is not recommended for samples contg. more than 30% of Mn. The end point is detd. by the change in the color of the soln. from pinkish brown to pink after the addn. of 1-2 excess drops of MnO_4^-; the color should persist after vigorous shaking. The results are accurate. W. R. Heinz

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Volumetric visual Determination of Manganese by Permanganate in an Acid Solution in the Presence of Fluoride. V.M. Zvenigorodskaya (Zavod. Lab., 1946, 12, 152-153;C, Abs., 1946 40, 5662; and (English summary) Metallurgia, 1947, 35, (208), 223). --((n Russian). Decompose the sample and prepare the acid solution obtained for titration as described in the preceding avstract. The solution should contain not more than 0.03g. of Mn. Visual titration is not recommended for samples containing more than30% of Mn . The end-point is determined by the change in the colour of the solution from pinkish- brown to pink after the addition of 1-2 excess drops ofMnO_4^-; the colour should persist after vigorous shaking. The results are accurate.



18-50. Volumetric Determination of Manganese by Titration With Permanganate in the Presence of Fluorides. V. M. Zvenigorodskaya and R. O. Gotliber. *Metallurgia*, v. 35, Feb. 1947, p 223.

Disadvantages of the various volumetric procedures for determining manganese. (From *Zavod. Lab*, v. 12, 1946. p. 142, 152.)

ZVENIGORODSKAYA, V N

PHASE I BOOK EXPLOITATION 846

U.S.S.R. Ministerstvo geologii i okhrany nedr

Metody opredleniya radioaktivnykh elementov v mineral'nom syr'ye (Methods of Determining Radioactive Elements in Mineral Raw Materials) Moscow, Gosgeoltekhizdat, 1958. 68 p. 3,000 copies printed.

Compilers: Sochevanov, V.G. and Titov, V.I.; Ed.: Krasnova, N.E. Tech. Ed.: Averkiyeva, T.A.

PURPOSE: This book is for those engaged in geochemical prospecting for radioactive ores.

COVERAGE: The chemical determination of radioactive substances in minerals and rock formations is described in this publication. Chemical treatment of materials in preparation for radiometric analysis is also included. The proposed methods are considered to be the most

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reliable for geochemical research. Methods are presented in the form of separate procedure instructions with the inclusion of: principle of the method, elimination of interfering factors, application limits, necessary reagents, procedure of analysis. Specifications for high purity reagents are given whenever necessary. There is a bibliography with 26 references, 17 of which are Soviet, 4 English, 3 German, 1 Czech, and 1 Swiss.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

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SOV/75-14-4-13/30

5(2)
AUTHORS: Zvenigorodskaya, V. M., Ryanicheva, M. I.

TITLE: Determination of Uranium by the Fluoride Method With Titrimetric Conclusion

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 4, pp 457 - 462 (USSR)

ABSTRACT: In the presence of hydrofluoric acid, bivalent iron in a sulfuric-acid solution reduces hexavalent uranium to the quadrivalent state. This reaction proceeds quantitatively. The redox potentials of the systems U^{VI}/U^{IV} and Fe^{III}/Fe^{II} change in dependence on the concentration of hydrofluoric acid. With an increasing concentration of hydrofluoric acid, the potential of the system U^{VI}/U^{IV} increases strongly, while the potential of the system Fe^{III}/Fe^{II} decreases. With a concentration of hydrofluoric acid of 2-3 mols/l, the potential of the system Fe^{III}/Fe^{II} is more negative by 0.17 to 0.20 v than the potential of the system U^{VI}/U^{IV}. This difference permits the follow-

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ing reaction:

$$UO_2^{2+} + 2Fe^{2+} + 4H^+ + 16F^- \rightarrow UF_4 + 2[FeF_6]^{3-} + H_2O \quad (2)$$

This reaction proceeds in a very wide pH-range, beginning with pH 4-5. Based on this reaction, the authors worked out two rapid determination methods for uranium. One of them has been already published (Ref 6), the second is the subject of this paper. The UF_4, which forms during the reaction (2), is readily soluble in hydrofluoric acid and can therefore not be used for the quantitative determination of uranium (Ref 8). The investigations of the authors showed that of the difluorides of quadrivalent uranium with the alkali metals only the difluoride with sodium is difficultly soluble in a sufficient degree for a quantitative determination of uranium. This compound does not only precipitate almost quantitatively from the acetate-buffered solution, but also from the mineral-acid medium. Table 1 shows results of the precipitation of U(IV) as difluoride with ammonium and with sodium in an acetate-buffered and a mineral-acid solution in the presence of hydro-

Determination of Uranium by the Fluoride Method With Titrimetric Conclusion

SOV/75-14-4-13/30

fluoric acid. For the determination of uranium in mineral raw materials by the fluoride method, the authors use the precipitation of uranium as di-fluoride $NaUF_5$ from a sulfuric-acid solution. The precipitate is washed after filtering up to the release of iron, and subsequently titrated with an ammonium-vanadate solution. The authors also investigated the influence exerted by foreign ions on this determination method, and established that the disturbing influence of iron, vanadium, molybdenum, and titanium can be eliminated. The results of the determination of uranium in synthetic mixtures which contained these foreign ions are shown in tables 2 and 3. Table 4 shows a comparison of the results of the determination of uranium by the fluoride method and the hydrosulfite method (according to reference 5). The course of analysis for the determination of 3 to 60% of uranium in the presence of iron, vanadium, molybdenum, and titanium is described in the paper very accurately. All results obtained by this method are too low by 0.3-0.35 mg of uranium. This

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error explained by the solubility of $NaUF_5$ during the precipitation and washing of the precipitate. This constant error can be eliminated by a corresponding empirical titer of the vanadate solution. The investigation under review was carried out between 1948 and 1952. There are 2 figures, 4 tables, and 12 references, 8 of which are Soviet.

SUBMITTED: June 9, 1958

Card 4/4

PETROSYAN, Ye.A.; ZVENIGORODSKAYA, V.P.

Studies on the Vi-antigen of the bacteria of the enteric group. Report No.4: Specific substance in the Vi-antigen in bacteria of the enteric group. Zhur.mikrobiol.epid.i immun. 31 no.11:142-149 N '60. (MIRA 14:6)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova.
(INTESTINES—MICROBIOLOGY) (ANTIGENS AND ANTIBODIES)

PETROSYAN, Ye.A.; ZVENIGORODSKAYA, V.P.

Study of the Vi-antigen of bacteria of the enteric group. Report No.3: Chemical structure of the Vi-antigen of bacteria of the enteric group obtained by means of trichloracetic acid extraction. Zhur. mikrobiol. epid i immun. 31 no.6:81-87 Je '60. (MIRA 13:8)

1. Iz Moskovskogo instituta vaktsin i syvorotok im. Mechnikova.
(ESCHERICHIA) (SLAMONELLA TYPHOSA)
(ANTIGENS AND ANTIBODIES)

USSR/Microbiology - Microbes Pathogenic for Man and Animals. F
Bacteria. Bacteria of the Intestinal Group.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99390

Author : Petrosyan, Ye.A., Zvenigorodskaya, V.P.
Inst : -
Title : Study of the Antigen of Bacteria of the Intestinal Group. Report 1. Immunochemical Study of Vi-Antigen of Typhoid Bacteria.

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiologii, 1957, No 8, 95-98

Abstract : The Vi-antigen was obtained from the strain Vi-1 Datnagar (free from o-antigen?) either by extraction with trichloracetic acid, or by splitting with pancreatin followed by fractionation with acetone under cooling (a culture was grown on a broth medium with aeration). In both cases the antigens were related by the content of total nitrogen and reducing substances; however, in the first

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PETROSIAN, Ye.A.; ZVEREVICHOROBSKAYA, V.P.

Studies on antigen of bacteria of the enteric group. Report No.1: Immunichemical study on the Vi-antigen of Salmonella typhosa. Zhur. mikrobiol.epid. i immun. 28 no.8:95-98 Ag '57. (MIRA 11:2)

1. Iz Moskovskogo instituta baktsin i syvorotok imeni Mechnikova.
(SALMONELLA TYPHOSA, immunology,
Vi antigen, immunochem. (Rus))

ZVENIGORODSKAYA, V.P.

PETROSYAN, Ye.A.; ZVENIGORODSKAYA, V.P.

Study on the Vi-antigen of enteric bacteria. Report No.2: Immunochemical study of the Vi-antigen of B. coli and S. ballerup. Zhur. mikrobiol.epid. i immun. 28 no.10:114-119 O '57. (MIRA 10:12)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova.
(ESCHERICHIA COLI, immunology,
Vi-antigen, immunochem. aspects (Rus))
(SALMONELLA, immunology,
Ballerup, Vi-antigen, immunochem. aspects (Rus))

ZVENINGORODSKIY, A.M.

USSR/Engineering - Hydraulics, Methods Nov 51

"Experiment on Deaeration of Concrete in Hydraulic Engineering Construction," O. A. Gershberg, cand Tech Sci, S. G. Skvortsov, A. M. Zvenigorodskiy, Engineers. "Gidrotekh Stroi" No 11, pp 14-18

In 1950, for 1st time in Soviet Union, deaeration of concrete was realized onindustrial scale under supervision of TsNIPIL (Cen Sci Res Trust. Discusses methods for deaeration on surface and in layers of concrete blocks and describes equipment. Describes testing for frost resistance and presents comparative results.

2COT86